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# Industrial Betterment Institutions

IN NEW JERSEY MANUFACTURING ESTABLISHMENTS

## Features of Factory Administration Designed for the Benefit of Operatives

Mutual Insurance Against Disability or Death. & Provisions for Improving the Conditions of Factory Operatives and Lightening the Burden of Their Labor. & Intelligent Co-operation Between Employers and Employees for Benevolent Ends. & The Bright and Hopeful Side of Industrial Life.

Prepared for the Department of Social Economy of  
The Louisiana Purchase Exposition

—BY—  
The Bureau of Statistics of New Jersey

WINTON C. GARRISON, Chief

TRENTON, N. J., 1904.

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## INTRODUCTION

**T**HE underlying purpose in the preparation of this work is to show that there is another and a much more inspiring and hopeful side to the great labor problem than that which is, sad to say, too often under the public eye with its usual incidents of strikes, lock-outs, boycotts, and other forms of bitter friction between employer and employe.

It is intended to show that notwithstanding these regrettable manifestations, the relations between the two great forces of industry, Capital and Labor, are really on a sounder and more healthy basis than appears to be the case, and that there is no scarcity of instances which go to prove that large numbers of employers and their workmen are, in their business relations, animated by sentiments of genuine friendliness for each other and loyally co-operating together in carrying out plans of mutual advantage, in the management of the various industrial enterprises on the prosperity of which both are equally dependent for success in the struggle of life.

Surface indications would seem to justify the belief that the strongest and most potent movement in industry at the present time, is that which appears to be driving capital and labor further apart; bringing about unfriendliness in the relations of employers and employes, and displacing the community of interest and harmony of action that once did, and always should, unite them.

The reasons for this are obvious; every instance of friction between employers and their operatives which results in strikes or threats to strike, are fully reported and become

widely known, and as it frequently happens that such strife is carried on in utter disregard of the injury that may be inflicted thereby upon others not in any way connected with or responsible for it, every occurrence of the kind is sure to receive a wide measure of public attention. As a natural consequence, the impression that industry generally is in a similar condition of discontent and unrest is very likely to gain ground.

But such a conclusion, although to some extent supported by visible indications, would be far from correct, at least so far as the State of New Jersey is concerned. The immense growth of manufacturing industry here, which in the decade between 1890 and 1900 showed an increase of seventy-two (72) per cent.—almost double that of any other State in the Union—proves conclusively that in New Jersey, such differences as may exist between capital and labor have not as yet, seriously affected the industrial prosperity of the State.

At least some measure of credit for this satisfactory condition of things is due to the constructive work of a practical kind which is being done by liberal, broad-minded employers and intelligent workingmen, many of whom are co-operating together cordially and harmoniously in carrying out plans for making the conditions surrounding industrial life easier, safer, and pleasanter.

But such persons do not, as a rule, seek publicity on account of the work of this kind they have done and are doing; its character and extent are, therefore, as yet comparatively unknown to the general public; although those who are especially interested in industrial problems have long known of these efforts to establish a higher and better order of things, and are looking hopefully for a restoration of the old-time fidelity to each other that once united the employer and his workmen, through the extension and final adoption everywhere of these or similar plans as fixed and permanent features of industrial administration.

In deciding to investigate the subject of betterment work at this time, the bureau was largely influenced by a request

from the Department of Social Economy of the Louisiana Purchase Exposition that it should be done; the purpose being to make the collated results of the inquiry, with other work of the bureau along the lines of social economics, a part of the State's exhibit at St. Louis.

The matter was called to the attention of manufacturers throughout the State by a circular letter, of which the following is a copy:

OFFICE OF THE BUREAU OF STATISTICS OF NEW JERSEY.

.....  
TRENTON, March 15th, 1904.  
.....

At the urgent request of the managers of the Louisiana Purchase Exposition, this bureau has undertaken to make an exhibit in the Department of Social Economy, which shall consist in part of a display illustrating the character and extent of such institutions designed to benefit employes as are now in operation among the manufacturing establishments of New Jersey.

These include betterment institutions organized by employers for the benefit of employes, such as profit-sharing, hospitals, beds in hospitals, club-rooms, libraries, reading-rooms, educational classes, lectures, recreation halls, gymnasiums, baths, lunch-rooms, rest-rooms, shop committees, sick benefits, burial funds, prizes for useful suggestions relating to business or for superior work, and, in fact, all institutions for improving social and industrial conditions and raising the general standard of life of the working people.

We regard it as being in the highest degree important to the interests of our State that the efforts which are being made by employers toward the establishment of enduring relations of amity with their workmen, based on mutually displayed evidences of good will, should be made known and full credit for the same awarded where it is due.

With this end in view, it is the intention of the bureau to make a special compilation and report embracing such establishments as may have in operation among its employes any of the forms of benefit institutions referred to above, or who have systems of any kind for similar purposes. The compilation, when completed, will be placed in the proper department of the Exposition along with reports on the same subject from other States and foreign nations.

With the coöperation of manufacturers who are in a position to furnish information, we feel certain of being able to make a presentation showing the existence of cordial sentiments of mutual help and interdependence between employers and employes in New Jersey which will give our State a position in the matter of enlightened and progressive management of industry commensurate with her high rank as a manufacturing State.

Will you, therefore, kindly let us know at once, the time for making

the compilation being very short, whether or not any form of betterment institution, on the lines referred to above, is at this time established in your works for the benefit of employes. If there is any such, please send, using enclosed addressed envelope for that purpose, a brief outline of the plan, on receipt of which blanks for the fuller information desired will be at once sent to you from this office.

Trusting you will second our efforts to make known, in this way, the best side of industrial life in New Jersey, we are

Very respectfully yours,

BUREAU OF STATISTICS OF NEW JERSEY,

W. C. GARRISON, *Chief.*

From the two thousand copies of this circular which were mailed to as many firms or corporations controlling manufacturing establishments, five hundred and ten replies were received. Of this number, seventy-five came from firms who were in a position to give interesting and valuable details relating to some one or more of the features for the betterment of factory life, as to the existence of which the inquiry was made. Further correspondence with these firms brought out the information relating to betterment work which forms the subject-matter of this pamphlet.

Each establishment appears by name in alphabetical order, with a full description of the benefit system reported as being in operation there.

A large number of these, it will be found, are associations to guarantee operatives against a total loss of wages through disability, and to provide a burial fund in case of death. In some instances these societies are supported and managed altogether by the workmen themselves; in others, assistance on some well-defined plan is given by the employers, while the expenses of many, and among them those on the most generous and extensive scale, are borne entirely by the latter.

In all these various enterprises, no matter what the particular plan may be on which each one is operated, the practical control and direction of the work they are intended to accomplish, is entirely in the hands of the workingmen. Nowhere does the record show an employer belittling the value of his gifts by assuming a patronizing attitude to

those on whom they are bestowed, and, without exception, all concerned express the highest degree of satisfaction with the results thus far accomplished.

About one hundred of the replies received were limited in contents to a simple statement of the fact that, nothing of the character indicated in the circular letter was then in operation at their respective works.

Among the remaining answers, about three hundred and thirty in number, were many from employers who expressed in most earnest terms a desire to know what others are doing on the lines of betterment evolution, with a view to the adoption of some plan for the benefit of their own employes that has been approved by the experience of others.

A large number of these letters are written in terms of the most cordial approval of the bureau's undertaking in bringing this important subject to the front, and express the belief that, like themselves, many other employers stand ready, when they know the first steps that should be taken, to meet their workmen more than half way in the adoption of measures for harmonizing the interests of capital and labor, and binding together in bonds of mutual interest and good will, the men whose work enriches the State, and the employer who directs their labor and converts its product into wages.

To bring the facts relating to this new departure in the management of industry before the public, and especially to point a promising way to industrial peace for those employers and workmen who may be in danger of drifting apart for want of the encouragement to get together, which, it is hoped, will be found in the experience of those who have had the courage and enterprise to establish the improved relations between capital and labor which are described in these pages, is what was aimed at when the work of investigating and describing these betterment institutions was taken up.

If a perusal of the contents of this pamphlet should lead to that much-desired result in only a few instances—although a much wider influence is hoped for—the labor ex-

pended in bringing the interesting economic experiments herein described to the attention of employers and workmen throughout the State, will have been well repaid.

The Chief of the bureau takes pleasure in acknowledging the value of the assistance rendered by the manufacturers of the State in the prosecution of the work, and avails himself of this opportunity to thank them jointly and severally for the same.

The courteous readiness to help in every possible way, and the interest which they displayed in every detail of the inquiry, very greatly encouraged those who were engaged in the work, and helped materially toward bringing it to a successful conclusion.

WINTON C. GARRISON,  
*Chief.*



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# Industrial Betterment Work

IN NEW JERSEY



Details of the Various Systems  
Now in Operation

1904

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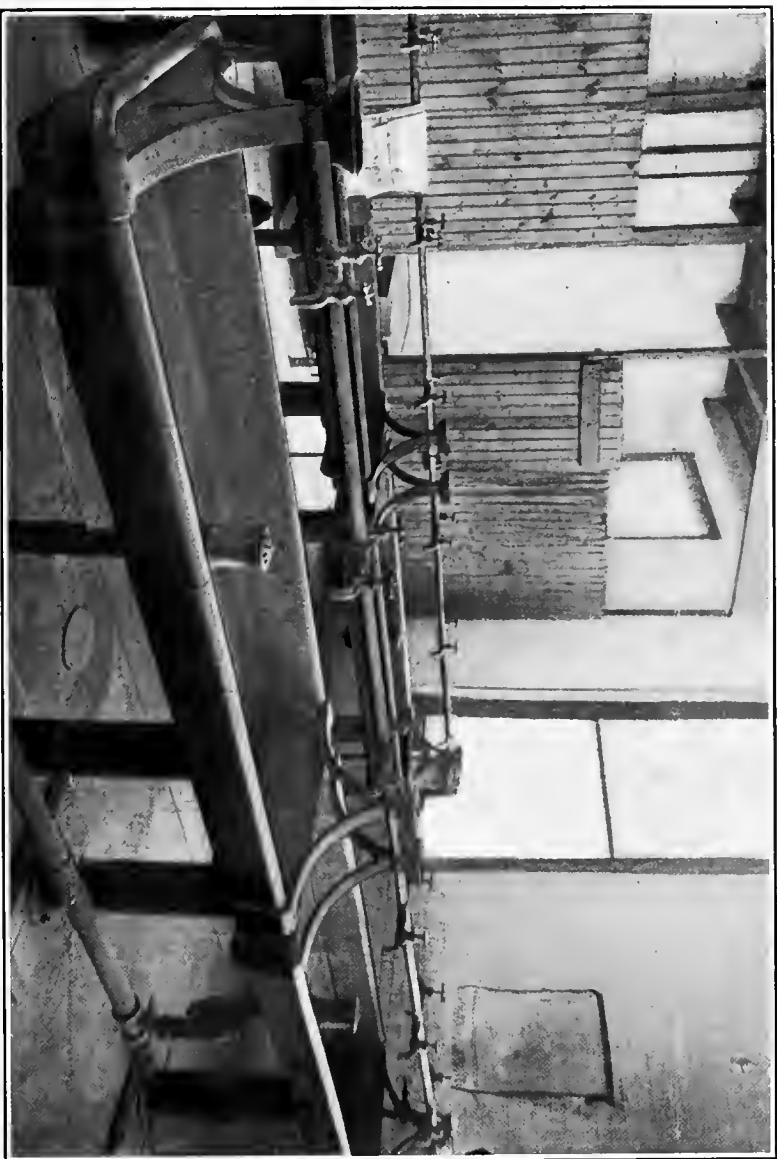






EXTERIOR VIEW OF LUNCH AND BATH ROOMS. AMERICAN BRAKE-SHOE AND FOUNDRY COMPANY.





BATH-ROOMS AND LAVATORY. AMERICAN BRAKE-SHOE AND FOUNDRY CO.





LUNCH-ROOM. AMERICAN BRAKE-SHOE AND FOUNDRY COMPANY.





## American Brake-Shoe and Foundry Company, Mahwah, N. J.

**Manufacturers of Brake-Shoes, Iron and Steel Castings.  
Employs 266 Males.**

This company provides a lunch-room and bath at its works for the benefit of employes. The lunch-room is well lighted, furnished comfortably, and large enough to accommodate those of the workmen who choose to use the facilities which it offers. The bath-room is accessible to all, and may be used during working hours by employes for a reasonable length of time.

A contribution of two hundred and fifty dollars (\$250) per year is paid to the local hospital for a bed, to be occupied by employes who are injured at work or who may become sick during working hours.

Provision is also made for placing stock of the company within reach of worthy and industrious employes who may desire to become possessed of it, and whose records entitle them to that consideration. The allotment of stock to employes is not made on any general or uniform plan, each case being considered and disposed of on its own merits. The prevailing practice, however, is to allow the dividends to be applied in payment of stock.

The influence which these opportunities have on the general conduct of employes in the matter of sobriety and steadiness at work is unqualifiedly good; all appear to appreciate what is sought to be done for them, and in return have, without exception, always shown perfect loyalty to the company's interests.

## American Engine Company, Bound Brook, N. J.

**Builders of Steam Engines and Electrical Machinery.  
Employs 110 Males.**

This corporation is a comparatively new one, and has only recently gotten upon a paying basis. The means for providing the comforts with which it would like to surround its workmen has not, therefore, been sufficient for that purpose. The best that circumstances has permitted being done up to the present time is the establishment of a premium system in connection with work, which permits the operatives to very materially increase their earnings.



## American Swiss File and Tool Co., Elizabeth, N. J.

**Manufacturers of Files.  
Employs 48 Males and 4 Females.**

Has a limited form of profit-sharing, which consists of allotting company stock to energetic and intelligent employees. The stock is given fully paid up, and a part of the profits of the business are set aside to pay for it.

The company does all in its power to encourage its employees to become members of building and loan associations, and the workmen generally show a disposition to follow the advice given them in this respect. The company also contributes liberally to the maintenance of the local hospitals, to which employees have the right of admission and treatment free of charge.

The families of deserving men are looked after in cases of sickness, and in many instances half the ordinary wages of workmen suffering through a long period of sickness has been paid to their families. In such cases the money paid has been regarded as an advance in anticipation of future earnings, and a small percentage of the wages which accrue after recovery is deducted until the money is returned. This course is followed in accordance with the



known and expressed wishes of employes who have been so assisted. They seem to feel that self-respect requires that they should not be under an obligation which they have the ability to repay.

The company looks sympathetically on the idea of sharing profits, and would adopt it if only a proper system could be devised for carrying out such plans. Pending the time when this may be done, and also as a fixed matter of policy, the firm encourages thrift, steadiness, regular contributions to building loan societies, and all other habits and practices that make men thrifty and prudent. Where the company finds a really valuable man, every endeavor is made to attach him permanently to the business by increasing his salary according to merit.

Satisfactory general rules for profit-sharing the company believes to be impossible without complicating the relations between employers and employes. Dissatisfaction would be quite likely to result from the fact that distribution could not possibly be uniform, but would have to depend entirely on the judgment of the employers, in the justice of which the greater number of employes would probably not concur.



## The Arlington Company, Arlington, N. J.

**Manufacturers of Toilet Articles from Pyralin.  
Employs 457 Males and 126 Females.**

This factory is situated in one of the finest and most healthful suburbs of the city of Newark, and the employes enjoy all the advantages of having homes outside of the confines of a large city.

The factory buildings are constructed on plans which provide the most nearly perfect sanitation and ventilation.

The company has recently fitted up two large dining-halls at the works, one for male and one for female employes,

where they can eat lunches and procure hot dishes of various kinds, with coffee, tea, etc., at actual cost.

A reading-room for employes has also been provided, which is well stocked with the magazines and other current periodicals. The company takes a deep interest in its employes, both collectively and individually, and stands ready to help them, when necessary, in every practicable way.

The employes appreciate their advantages, are contented with their surroundings, and perform their duties without friction of any kind between themselves and their employers.



### **Ayers Machine Company, Salem, N. J.**

**Manufacturers of Presses, Dies, etc.**

**Employs 42 Males.**

This company has provided a wash-room with concrete floor, hot and cold water and other facilities for washing, and have also provided for each employe separate lockers, which are in the wash-room and all arranged conveniently so that they may keep themselves and their belongings clean and in good order.



### **William C. Baker, Hoboken, N. J.**

**Manufacturer of Hot-Water, Non-Freezing Car Heaters.**

**Employs 21 Workmen.**

The factory of this firm is not large enough to afford space for such features as library, lunch-room, or bath-room, although these advantages are appreciated by the management and will be installed when the growth of business warrants their adoption.

The employes are, however, treated with all possible fairness and even indulgence. One rather unusual but very

generous custom which prevails in this factory is giving all employes a vacation during the year, with full pay. The workmen are allowed one week, and salaried officers two weeks. All are allowed full pay for the following holidays: Thanksgiving, Christmas, New Year, Washington's Birthday, Fourth of July, and Labor Day.

The very best of feeling exists between these workmen and the firm, and no strike or disturbance of any kind has ever occurred among them.



## The Baker Printing Company, Newark, N. J.

**Printers and Bookbinders.**  
**Employs 85 Males and 15 Females.**

The Baker Printing Company occupies a large building which was erected for the business, and in the construction of which light, perfect sanitation and ventilation were aimed at and secured. The business was begun by the proprietor, in the year 1885, in the smallest possible way, and is to-day the largest in its line in the city of Newark.

As a result of the loyalty and energy displayed by some of the employes, the proprietor decided, in 1898, to have the business incorporated with a capital of fifty thousand dollars (\$50,000), and permitted the employes to subscribe for the stock. The plant at the present time contains seventy-four thousand dollars' (\$74,000) worth of machinery, while the subscriptions to stock amount to only twenty-two thousand dollars (\$22,000). The undivided profits on the first of January, 1904, were forty-one thousand six hundred and eighty-two dollars (\$41,682), and the dividend on stock for 1903 was eight (8) per cent. The stock is sold to employes at par.

The ratio of stockholding employes to the total number of persons employed for the six years that have elapsed since the business was incorporated is as follows:

| <i>Years.</i> | <i>Total number<br/>of employees.</i> | <i>Employees who are<br/>stockholders.</i> |                  |
|---------------|---------------------------------------|--|------------------|
|               |                                       | <i>Number.</i>                             | <i>Per cent.</i> |
| 1899, .....   | 74                                    | 10   | 13.5             |
| 1900, .....   | 80                                    | 13   | 16.2             |
| 1901, .....   | 84                                    | 13   | 15.4             |
| 1902, .....   | 90                                    | 17   | 18.8             |
| 1903, .....   | 95                                    | 25   | 26.3             |
| 1904, .....   | 100                                   | 27   | 27.0             |

As a result of the enlightened and generous policy pursued by the founder, the business of the Baker Printing Company is growing toward a realization of the highest ideal form of co-operative business management, under which the workmen will be their own employers. It will be noticed by examining the above table that the percentage of stock-owning employees in 1904 is just double what it was in 1899, the first year the plan was put in operation.

A congenial condition of affairs exists in all departments, notwithstanding the fact that the composing-room employs men affiliated with a labor union.

The Board of Directors of the Company decided, several years ago, that, as the stockholders were owners of the business, it was not necessary for them to join new unions as they came up. The only union in existence at the works at the time of the incorporation of the company was a local of the National Typographical Union, whose members are still employed in the composing-room.



## Julius Brandes Manufacturing Co., Paterson, N. J.

**Manufacturers of Silk Ribbons, Bindings, etc.  
Employs 310 Males and 172 Females.**

Under the encouraging auspices of this company, its employes have created a Benevolent Circle for the relief of those who become sick or disabled while in the firm's employ.

Membership is strictly limited to employes, and the number of those who are connected with the circle is (March, 1904) two hundred and thirty-three (233), or about seventy-five (75) per cent. of the total number of male employes.

Members pay ten (10) cents per week as dues, and the firm makes a contribution annually to the funds of the Circle, the amount of which is based on the number of members.

The sick or disability benefit paid is six dollars (\$6) per week for thirteen consecutive weeks, and longer, if, on medical authority and a knowledge of the financial circumstances of the member, the case seems to warrant and require it. The firm contributes annually two dollars (\$2) per member in good standing, until the aggregate amounts to a fund of one thousand dollars (\$1,000), which must be held as a reserve and used in emergency cases, such as epidemics, etc., only.

No provision has as yet been made for the death of members, but the matter is now under consideration by the Board of Directors.

The firm unqualifiedly expresses the belief that this benevolent society exercises a good, wholesome influence on the general conduct of the employes, in so far that, having an interest at stake, however small it may be, they are more apt to listen to reason themselves and to influence others in the same way. The firm makes no attempt whatever to guide their workmen's actions, except in the matter of the reserve fund.

## **Bressler Brothers, Bayonne, N. J.**

**Manufacturers of Clothing.  
Employ 65 Males and 20 Females.**

The employes of this firm have organized among themselves a society which pays five dollars (\$5) per week to sick members for a period of fifteen weeks' illness, and defrays the cost of burial in case of death.

The finances of the society are provided and managed exclusively by the employes.



## **Brighton Mills, Passaic, N. J.**

**Manufacturers of Cotton and Special Fabrics.  
Employ 115 Males and 120 Females.**

The management of this company reports that it is now planning to introduce certain improved methods of payment of wages, which will be, in effect, profit-sharing, but in what they regard as a very much improved form. It is also intended to encourage the making of suggestions relating to the work by employes, by offering a liberal bonus for such as may be practical and result in improvement to the business. It is expected that the system will be ready to put in full operation during the spring of 1904.



## **The Camden and Philadelphia Soap Company, Camden, N. J.**

**Manufacturers of Laundry Supplies.  
Employs 20 Males and 5 Females.**

No organized form of betterment or benefit institution is maintained by either this firm or its employes. The broad-minded and generous policy pursued by the company in everything relating to the well-being of its employes fills

the place and does the work of such associations very thoroughly, and that without cost to its workmen.

Without ostentation of any kind, but in an entirely modest way, as though there were nothing uncommon in the course pursued by them, it is stated by the company that they "have been in the habit of taking care of employes at all times; during dull seasons and sickness they have never lost financially, being always on the pay-roll, sick or well, work or play."

"The results are, we have never had any trouble between ourselves and our employes, who are and always have been faithful and remain with us. We have employes who have been with us for the past twenty-seven years. Under these circumstances, neither our employes or ourselves have ever felt the need of any form of organization."



## **Carter, Howe & Company, Newark, N. J.**

**Manufacturers of Fine Jewelry.  
Employs 149 Males and 78 Females.**

The factory building of Carter, Howe & Company has a thoroughly modern system of ventilation by means of exhaust fans.

It is also supplied with drinking water from a driven well, direct pipes from which, with faucets, are on each floor. The water, which is used for drinking purposes only, has been analyzed, and pronounced wholesome and good. Thus, breathing untainted air and drinking perfectly pure water of even temperature the year round, there is not the former craving for stimulants, and but little trouble has occurred from excessive drinking on the part of employes. By these means the firm has brought about what it regards as a condition of practical temperance.

Because of the value of gold on the work-benches, employes are not allowed to remain in the factory during the noon hour; so, for the convenience of those who cannot go

home for dinner, the first floor of a building which adjoins the factory has been leased and fitted up comfortably for the men's use.

For the women employes there are two rooms, beside the toilet and kitchen, the latter having a cooking-stove with fire and teakettle of hot water ready for them, so that they can make tea or coffee or cook any simple article of food, if they care to do so. The women's lunch-room is provided with shelving, closets and other conveniences for putting away dishes and cooking utensils, and for meeting other requirements of the purposes of its use. All the rooms are heated by steam, and kept clean and comfortable at the expense of the company.

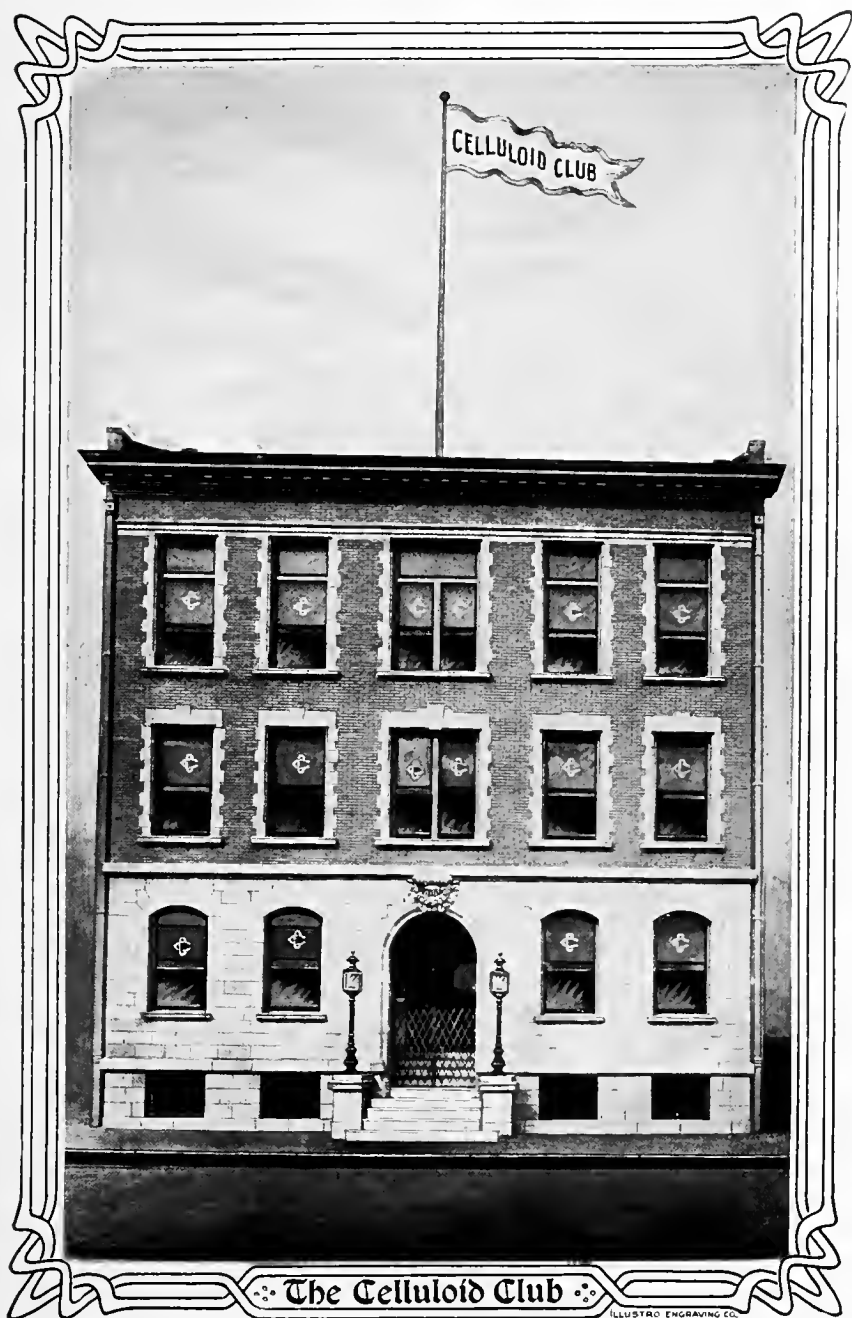


## The Celluloid Company, Newark, N. J.

**Compounders of Pyroxyline, and Manufacturers of Articles Made  
Therefrom Under the Trade Name "Celluloid."  
Employs 945 Males and 360 Females.**

The Celluloid Company, whose works cover a large area in the eastern district of Newark, has laid down and now maintains, in co-operation with its employes, a system of benefit institutions which perfectly meets the material, moral and intellectual requirements of its working force. The beginning of these now firmly established plans for the improvement of factory life are found in the early history of the company, when the comparatively small-sized works were first established on part of the site now occupied by its extensive plant. The plans commenced with the early life of the industry, and grew with its growth; the employes being at all times inspired by a desire to cultivate every means of self-help and mutual improvement. Clubs of various kinds were formed; some for athletic games and exercises, others for intellectual training and mental improvement, and still others for mutual aid in cases of distress through sickness or death.





•• The Celluloid Club ••

ILLUSTRO ENGRAVING CO.

THE CLUB HOUSE.



These organizations increased in number and in membership also as the Celluloid Company's business increased in magnitude and the force employed became greater.

The clubs were organized largely on departmental lines, and suffered from the incidental disadvantage of such narrow limitations not being favorable to the free extension of acquaintanceship among the company's employes. The mere departments were the centres of interest to those employed in them, instead of the entire works, of which these were but subdivisions.

Things had gone on in this way for some years, the employes organizing and managing their societies as seemed to them best, without any interference whatever on the part of the employers. But the company officials had been watching the movement toward organization among its operatives with sympathetic interest, and observed much to admire and nothing to condemn, both in the purposes for which the societies were formed and the manner in which their affairs were conducted.

Meanwhile the broader-minded members of the various organizations became dissatisfied with the limitations necessarily imposed by the departmental basis on which they were formed, and soon the societies were opened to all employes of the Celluloid Company, without reference to the part or branch of the business in which they might be employed.

This new departure produced a great expansion in the membership and also the activities of the societies; so that the question of meeting-place accommodations soon became a matter of serious difficulty.

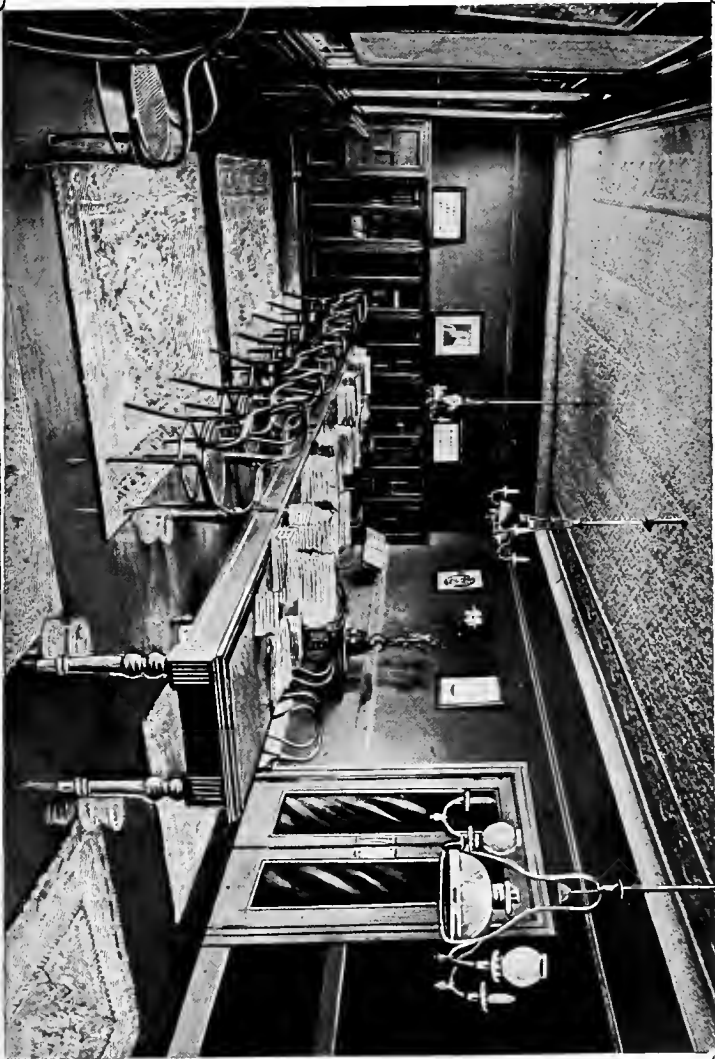
An attempt was made to secure the use of a vacant floor in one of the factory buildings, and the necessities of the situation were explained and a request to that effect preferred to the managers of the company, by a committee acting on behalf of the members of the various clubs connected with the works. This application, which was the first instance in which the firm had been requested by the operatives to in any way assist them in matters relating to

their organizations, was productive of important and far-reaching results. After due consideration had been given to the matter, the Celluloid Company dismissed the suggestion that any part of the factory space should be used for such purposes, as no satisfactory or suitable accommodations for the work of the organizations could be provided in that way. A further discussion of the subject, carried on between the representatives of the company and the officers of the operatives' societies, finally brought about the consolidation of all these bodies into one organization, under the expressive title "The Celluloid Club."

The Celluloid Company solved the meeting-place problem in a manner which displayed at once a superb confidence in its employes and an unparalleled liberality in assisting them to carry out the plans they had formed for mutual improvement. Instead of the privilege of using a spare floor or loft in one of the factory buildings for which they had petitioned, they were given a club house of the most solid construction and impressive dimensions, furnished throughout with everything required for its various uses. The building and furnishings were paid for entirely by the company, the total cost closely approximating forty thousand dollars (\$40,000).

This truly magnificent building, which, it may be safely said, is one of the largest and best appointed club houses provided by employers for the benefit of their workmen to be found in New Jersey, or probably anywhere else in the United States, is dedicated with all its furnishings to the exclusive use of the employes of the Celluloid Company, and managed by them under the organization name of "The Celluloid Club."

Further on, a history of this interesting organization is given in an article on the subject written by Mr. S. T. Simmonds, a gentleman of high intelligence who is an employe of the company, and was the first president of the club. The number and purposes of the various sub-societies which exist within the controlling organization are given



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THE CELLULOID CLUB.



and explained by Mr. Simmonds in a most interesting manner.

The club house is situated at the junction of Lafayette and Sanford streets, in the eastern district of Newark, within convenient walking distance of the works and of the homes of at least eighty per cent. of the operatives employed in them. The neighborhood is well built up with comfortable residences, and although conveniently near one of the main thoroughfares on which are trolley lines running to and from all points in the city, the street on which the building stands is far enough away to escape the disturbing noises of traffic.

The location is, therefore, as nearly an ideal one as it is possible to obtain within a reasonable distance of the manufacturing district of a large city.

The club house, the front of which is shown in one of the illustrations, is fifty feet in width, one hundred feet in depth, and contains three floors and a basement.

In the basement are two fine, slate-floored bowling alleys, two shuffle boards, and two tunnels with targets for rifle practice.

The main entrance on the first floor is reached by a short flight of marble steps, and a fine vestibule with mosaic flooring which has the club name inserted across its width.

To the right of the main hallway is a fine, broad stairway leading to the second floor, and beside it, another of equal capacity by which entrance is had to the basement. On the left, at the extreme end of the hallway, is a large open fire-place and an old mantel which occupies the centre, and is flanked on both sides by leaded pane windows and window-seats, the whole presenting an appearance of quiet beauty suggestive of the old colonial style of interior. The administration offices of the club, the café and a large billiard-room are on this floor.

The café furnishes lunches, and, if required, more elaborate meals are served, but only to members and the guests whom they are allowed by the by-laws of the club to introduce. Members of the club who reside a long distance from the works can have lunch served at the noon hour for a

much lower rate than the same food would cost if obtained in a regular restaurant. No strong liquors are allowed in the club house, consequently none are handled in the café, but beers, ales and wines are kept in stock and served, as wanted, in moderation.

On the second floor is the library and reading-room, which is of generous proportions, the length being equal to the entire width of the building. The decorations are of a very tasteful character, the colors being quiet and harmonizing perfectly with each other, and also with the fittings and furniture, the general effect produced is highly pleasing. Book cases filled with well-selected volumes of good literature and books devoted to scientific and technical subjects line the walls on the three sides of the room, and a long table stacked high with magazines and other periodical publications, the best of their several kinds, occupies the centre. Several beautiful groups in bronze, trophies won in contests by some of the associations connected with the club, are distributed about the room in positions where they contribute most to the general decorative effect. A condition of perfect order and an air of quietness, refinement and repose pervades the library everywhere and is plainly visible in all its appointments.

Besides the library there is, on this floor, a reception-room for ladies, bath-rooms, meeting-rooms for committees, a billiard-room and a large card-room appropriately furnished with tables and chairs.

The ladies' room, which is very tastefully furnished with easy chairs, lounges and handsome rugs, has been fitted up especially for the accommodation of the female employes of the Celluloid Company and friends of the club members to whom a reception and dance is given once a month throughout the year.

The bath-rooms are provided with the latest types of tubs and sanitary plumbing. Office and committee-rooms are all furnished with roll-top desks, chairs and other appropriate fittings.

The card-room is a commodious apartment containing





❖ Entertainment Hall ❖

THE CELLULOID CLUB.



numerous tables specially designed for the uses to which they are put.

The amusement hall on the third or top floor of the building is, from its size, furnishings and the uses made of it, the most impressive part of this most beautiful club house.

The hall occupies the entire length and breadth of the building outside of the space taken by the broad stairway which leads to it from the floor below. Large windows at the front and on both sides admit abundance of light and secure perfect ventilation.

The rear end of the hall is taken up by a stage which has a front or opening of thirty feet. Scenery and other equipment required for the production of plays are plentifully provided, and are all of a quality equal to the stage equipment of the best theatres in the city of Newark.

The entertainment hall is used by the club members for various purposes. The Dramatic Association, one of the numerous club organizations of the Celluloid Club, gives frequent plays there, particularly during the fall and winter months. On such occasions the floor is covered by rows of chairs as shown in the illustration, which extend from the stage to the front of the hall. When not in use for theatrical purposes or for lectures, the chairs, which are made to fold up, are put away in the open space under the stage.

In all theatrical performances those who take the parts are employes of the Celluloid Company, and, excepting the female performers, are members of the club.

Receptions, with dancing as the main incident, are held once a month, these functions being complimentary to the company's female employes, and particularly designed to enable them to participate in and enjoy some of the advantages of the club. The hall, with its smooth and well-waxed floor, bordered with polished hard-wood settees ranged against the wall on all sides, is a perfectly ideal ball-room, and the evenings devoted to these functions are always greatly enjoyed by all who take part in them.

An Athletic Association, another of the sub-groups into which the membership of the parent organization is divided,

uses the entertainment hall for its exercises, which, except during the warm summer months, are held once a week throughout the year.

The athletic class has a competent professional instructor, who directs and controls all its exercises.

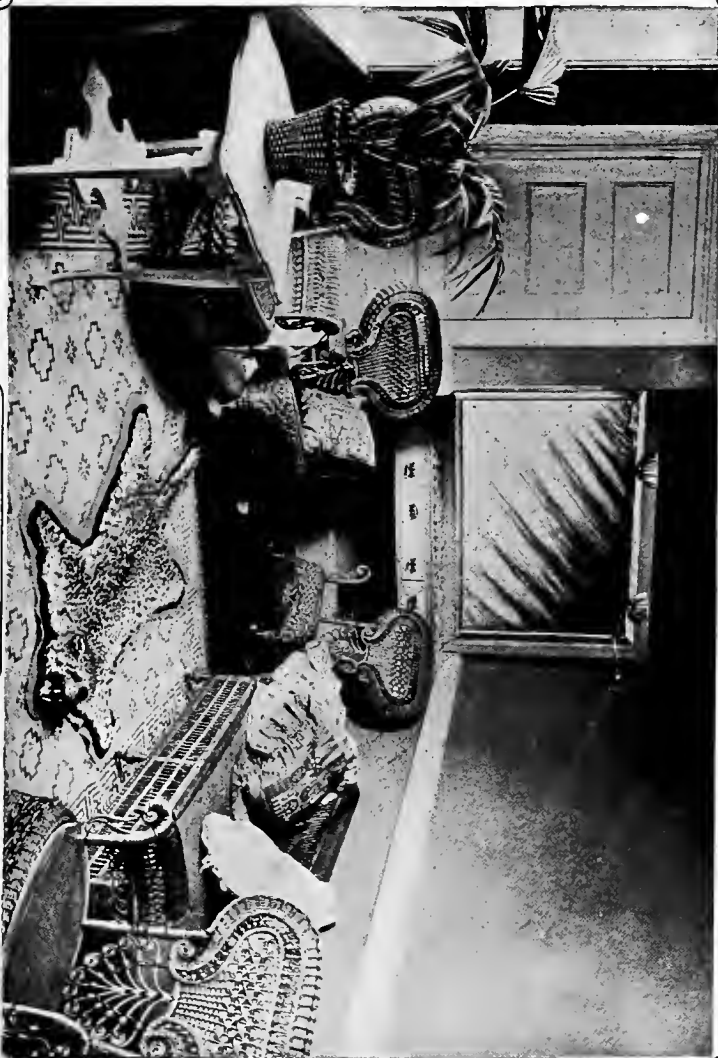
A complete gymnasium outfit is provided for the athletic association; the articles are set up in the hall on athletic class nights, and removed therefrom immediately after use or when necessary to prepare the room for other purposes.

The sub-organizations mentioned here are only a few of the many that flourish within the Celluloid Club and enjoy the facilities of this admirable club house, but these details are fully gone into by Mr. Simmonds, and no further reference need be made to them here.

Those familiar with club life and the facilities for recreation and for the comfort of members which are ordinarily provided in first-class club houses do not hesitate to say that in all these features the quarters of the Celluloid Club—the gift of the broad-minded and liberal members of the firm whose workmen constitute its membership—are equal to any for which the membership dues range up to fifty dollars a year. Indeed there is nothing legitimately related to the purposes of a first-class club that is not found here, and that of a quality equal to the best, although the dues are placed at the nominal amount of twenty-five (25) cents a month.

The Celluloid Company pays the taxes, insurance, etc., on the club house, but makes no regular provision towards the club's support; its theory being, to quote the words of President Marshall C. Lefferts, of the Celluloid Company, "that the club would prosper better, and inculcate a feeling of self-reliance and respect in the employes, by letting it be felt by them that it is not a gratuity or charity offered by the company, but a club of themselves, by themselves, and for themselves."

"The company has been called upon and has met several extraordinary expenses which it felt was, perhaps, more than the club could stand, and has, through its officers, con-



❖ Ladies' Room ❖

THE CELLULOID CLUB.



tributed prizes and subscriptions toward various plans suggested by the club."

The cost of maintaining the club is about \$2,225 per year. The dues, based on the present membership of 525, will yield approximately \$1,500; the balance of the running expenses is made up by income derived from the small fees which members pay for participation in the various games and classes.

#### **By-Laws of The Celluloid Club.**

A brief review of the by-laws governing this interesting organization will fittingly close what is necessarily a brief description of the beautiful building that is its home.

The club was organized on the 11th of June, 1899, and is, therefore, now five years old. Its official title is "The Celluloid Club of Newark, N. J.," and its object is declared to be, to promote the social, moral and intellectual welfare of the employes of the Celluloid Company.

Any male employe of the Celluloid Company is eligible to membership, and may remain in the club so long as he is an employe of the company and complies with the rules. A member who has been an employe of the Celluloid Company for ten years, and who leaves the company's employ honorably, may continue his membership, but without either the privilege of voting or holding an office.

A male stockholder of the Celluloid Company may become an honorary member of the club and retain such membership so long as he remains a stockholder, with the same privileges as an active member, but without the right to vote or to hold an elective office.

The officers of the club consist of a president, vice-president, secretary, financial secretary and treasurer, and a board of governors consisting of nine members. These officers, with the exception of the governors, whose term is three years, are elected for one year. No more than three members of the board of governors may be elected from one department of the company's works. All officers must be at least twenty-one years of age. Voting is by printed

ballots, which are provided by the Board of Governors, and the polls are open from six to nine o'clock P. M.

Regular meetings are held once a month, and special meetings whenever called for by twenty-five members in good standing. Notice of special meetings must be posted in the club house and in the factory buildings, at least one week prior to the date on which they are to be held. A quorum for either regular or special meeting purposes is thirty members.

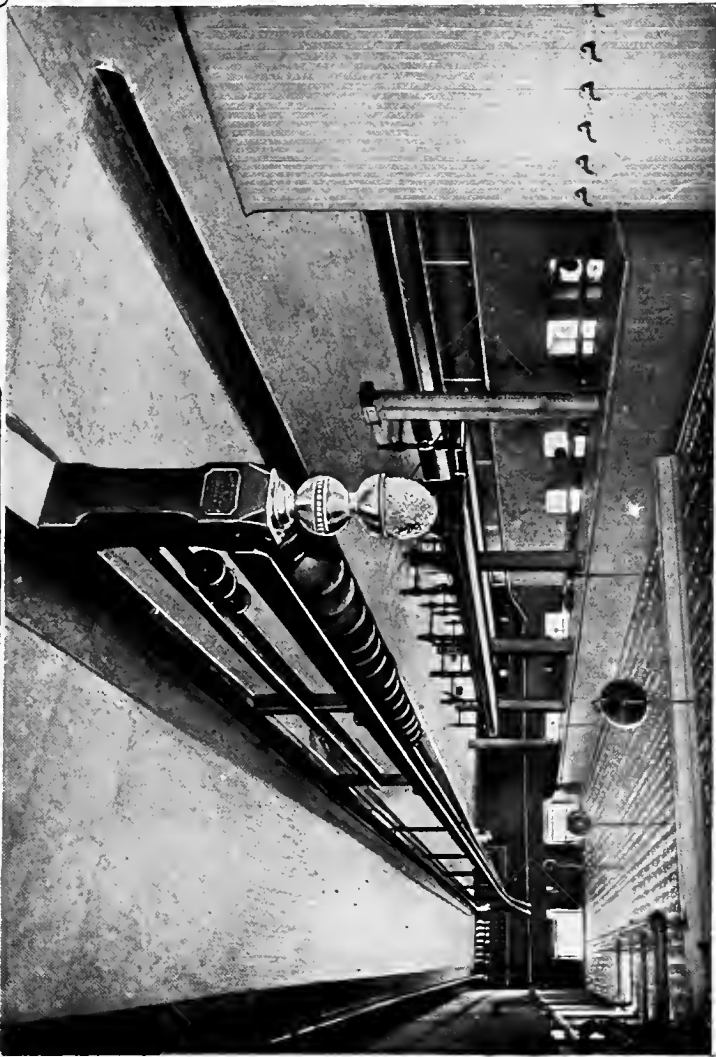
The duties of the president, vice-president, secretary and treasurer are similar to those required to be performed by such officers in all organizations.

The Board of Governors, which consists of nine members is the controlling authority in all things relating to the club and its management. The board has the care of the funds, investments and other property of the club, and exercises general supervision over everything relating to its material welfare. All bills must receive the approval of the governors, and all drafts on the treasurer be signed by them before being paid. Seven of the nine members of the Board of Governors are required to form a quorum. Their power in the management of club affairs during the intervals between club meetings is absolute; all help is employed by them and no employe can be discharged without their sanction.

The membership fee is fixed at one dollar (\$1.00), which must accompany the application for membership, and the monthly dues are twenty-five cents (\$0.25). A member who owes two months' dues is suspended from all privileges until he pays the arrearage. If, at the end of the third month, a member's account remains unsettled, his name may be dropped from the roll. To be reinstated, the full amount of arrearage together with a new admittance fee of one dollar (\$1.00) must be paid.

Members have the privilege of entering the club house at any time within the hours fixed by the club regulations, and making use of any of the various features or facilities therein provided.





⋄ Bowling Alleys ⋄

THE CELLULOID CLUB.



Members have the privilege of introducing two guests each per week who are not eligible to active membership, but these guests cannot be taken into the club house by any other member the same week.

No one under eighteen years is permitted in the club house unless accompanied by parent or guardian.

Members are responsible for the acts of strangers whom they introduce into the club house.

The Board of Governors are required to hear and act on all charges against members for conduct injurious to the peace, good order or reputation of the club, or other conduct unbecoming a member, and may expel, suspend, or censure an accused member who is found guilty.

The club has two standing committees which are appointed annually by the president; these are the Committee on Entertainments and the Committee on Games.

The Committee on Entertainments has the right to regulate the use of the assembly or entertainment hall, and to arrange and have sole charge of all entertainments authorized by the club that are not otherwise provided for.

It is scarcely necessary to say that the rules and regulations relating to the club house and the use of its wide variety of features are as liberal as they can possibly be made, consistently with the preservation of the property and the maintenance of order and decorum at all times. But little effort is required to enforce the rules, and the instances are very rare where members willfully violate them. Theoretically, the club house is open from 9 A. M. until midnight, but in practice, there is but little doing in it until after 6 P. M., all the members being engaged at their regular duties in the company's workshops during the day. In the evening, however, the crowds are always large, and the various facilities provided by the club for amusement, athletic exercises and mental and physical improvement are used with an enthusiasm born of gratitude to their employers who have placed these much-prized advantages within their reach.

#### **The Mutual Benefit Association of The Celluloid Club.**

The principal sub-organization which has grown from the Celluloid Club, and one of the greatest value to the members and their families, from the material point of view, is undoubtedly the Mutual Benefit Association.

Membership is restricted to male employes of the Celluloid Company, but to hold an office in the association or be entitled to the privilege of voting, the person must be a member in good standing in the Celluloid Club and an employe of the company for at least one year.

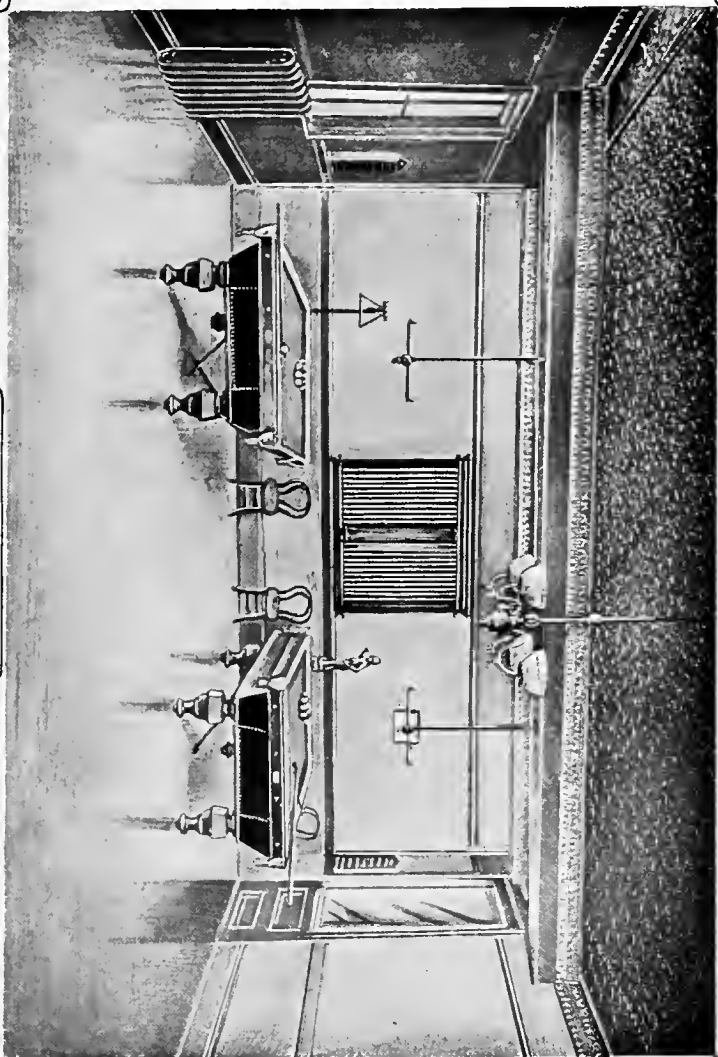
The association has, at the present time, three hundred members and a reserve fund in its treasury amply sufficient to meet all obligations that may accrue against it.

Before the Mutual Benefit Association was organized, difficulties were frequently encountered in determining the real merits of cases wherein applications for help were made by employes, who, from sickness or through accidental injury, were unable to work. The Celluloid Company was very desirous that there should be no suffering among its employes or their families on account of the stoppage of wages through sickness or other form of disability, and in such cases invariably extended the necessary assistance where the facts were brought to the notice of the company's officers, and the circumstances seemed to justify such action.

But the need of some organized method of dealing properly with such matters was soon felt and the necessity of having an organization for that purpose became more and more apparent as the employes of the company increased in numbers.

The situation in this respect and the thought given to the question of how to deal with it so as to take care of deserving cases of want and guard against fraud at the same time, finally resulted in the establishment of the Mutual Benefit Association, which now provides both the machinery for investigating claims and the money to assist those found to be entitled to relief.

The suggestion which led to this action came from the



Billiard Room

THE CELLULOID CLUB.



officers of the company and was eagerly adopted by the employes who saw in the plan a certain means of changing their dependence for help when sick and in need, from a charitable to a business basis. In other words, the insurance principle pure and simple was adopted, and every employe was thereby at once placed in a position to make such provision for his family in the event of his own sickness or disability, as he felt able or disposed to pay for out of his weekly wages.

The officers of the company made a very liberal donation of money to the association at the commencement, which placed it in an independent financial position and fully able to meet all demands.

A full set of officers consisting of a president, vice-president, secretary, financial secretary and treasurer is provided by the constitution of the Mutual Benefit Association for conducting its business. These officers are elected at the regular annual meeting for a term of one year. There is also a Board of Trustees, seven in number, the members of which serve one year and are so elected that the terms of three and four of them respectively terminate alternately every six months.

Any male employe of the Celluloid Company under fifty years of age, of good habits, and moral character, may become a member by passing a medical examination; but to qualify for holding an office, it is necessary to be twenty-one years of age, a member of the association, and also of the Celluloid Club, and to be in good standing in both organizations.

In fact, while any employe of the company under the specified age can become a beneficiary member of the Benefit Association, only those who are members of the club are allowed to vote or attend meetings that are held in the club house.

The Board of Officers and Trustees acting together are required to consider and pass on all applications for membership, and decide on the qualifications of members for holding office, and also all other questions connected with the

regular business of the association, such as auditing the accounts and deciding on applications for benefits.

The Board of Officers and Trustees hold at least one meeting each week to consider applications and to hear reports from the sick visiting committees.

Two classes of insurance are provided; one against sickness, and the other against death. Members are required to insure themselves in both classes.

The maximum amount of insurance against sickness allowed to a member is ten dollars (\$10.00) per week, and the minimum, three dollars (\$3.00) per week. The rate charged is two cents (\$0.02) for each dollar of weekly benefits desired.

The death benefits allowed are fifty dollars (\$50.00), and one hundred dollars (\$100.00); for which amounts the weekly payments are respectively, two cents (\$0.02) and four cents (\$0.04) per week. Members are not allowed to insure themselves against sickness for more than the amount of their weekly wages.

Sick benefits do not begin until a member has been connected with the association for three months, and unable to perform his regular duties at the factory for at least one week. Death benefits are paid only after the deceased member has been in good standing in the association for a period of three months.

Claims on account of sickness or disability originating in intemperance or other vicious or immoral conduct are not allowed.

Before sick benefits are allowed, a doctor's certificate stating the nature and probable cause of the sickness must be sent to the Board of Trustees by the applicant, and the same must be done every two weeks thereafter while benefits are being paid.

The amount of money paid as sick benefits to any one member is graded into four classes according to the duration of the case of sickness or disability. Full benefits, that is to say, the exact weekly sum for which the beneficiary is insured, is paid for only a period of thirteen weeks in any



twelve consecutive months from the date on which the sickness or disability began; if the disability continues beyond that time, benefits are reduced to three-quarters; if it extends past six months, only one-half is paid; if more than nine months, the benefits are reduced to one-quarter of the full amount, which sum is paid until the completion of one full year of disability, when all payments cease.

The greatest possible care is taken in handling applications for disability benefits to protect the association against fraudulent claims. All requests for benefits are made to the president, who turns them over to a visiting committee. This committee is required to visit the applicant at least three times each week for the purpose of satisfying themselves regarding the genuineness of the disability on account of which relief is claimed or is being paid. Their reports are made regularly to the Board of Officers and Trustees, who have power to order that the payment of benefits be discontinued whenever in their judgment the reports of the sick committee would seem to warrant the adoption of such a course. Claimants for benefits are required to furnish a physician's certificate of disability not only with the application in the first instance, but at any time thereafter during the payment of benefits if required to do so by the Board of Officers and Trustees. If a claim is found, on investigation, to be fraudulent, charges are promptly brought against the offending member, which may, if sustained, result in his expulsion from the association, and possibly, also, from the employment of the Celluloid Company.

The constitution provides that when the surplus funds of the association have grown to an amount equal to twelve dollars (\$12.00) for each member in good standing, payment of dues by all members who have been on the rolls for more than one year shall be suspended, and not resumed until the surplus has diminished to a sum equal to ten dollars (\$10.00) per capita of the membership in good standing.

Of the several forms which the movement toward organization among the employes of the Celluloid Company has assumed, the Mutual Benefit Association may, with the

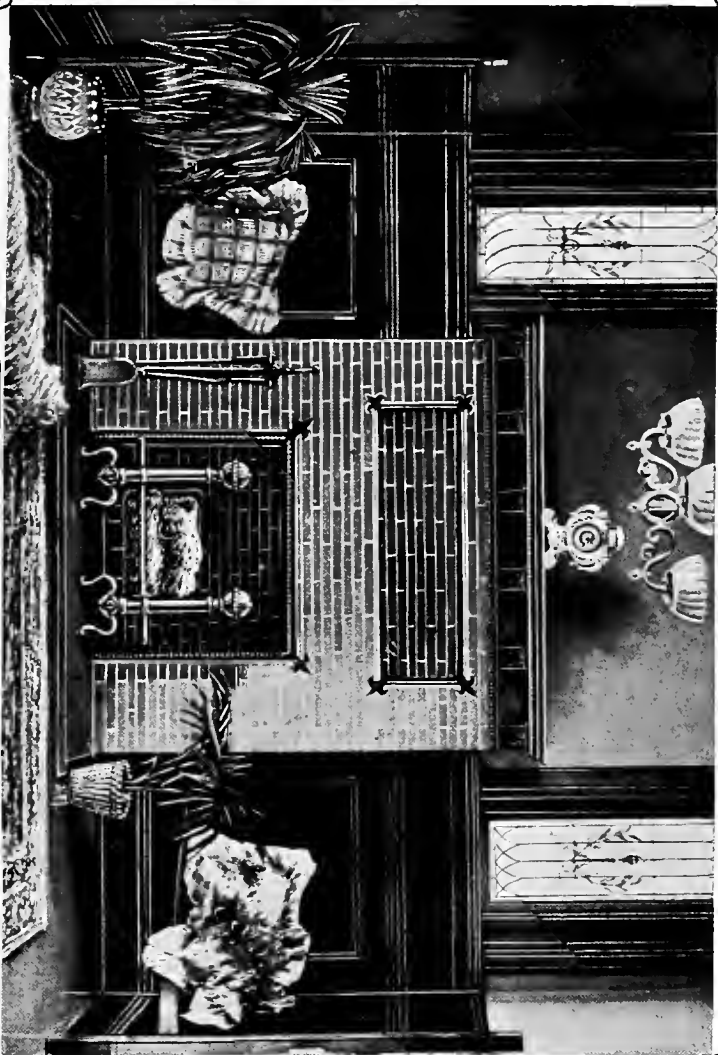
possible exception of the parent organization, the Celluloid Club, be regarded as most beneficial to the company's workmen and their families.

Through its assistance many have been saved from want or from running into debt because of a suspension of income, which, among wage workers, is generally the sure accompaniment of sickness or inability to work.

In this enterprise, as in all others designed for either moral, mental or material improvement in which the Celluloid employers have at any time since the foundation of the business interested themselves, the company and its individual officers have extended every assistance in their power, and always with a cheerful cordiality that has made the aid given doubly valuable.

From the very first beginnings of the comprehensive system of betterment institutions, designed to increase the comfort and prosperity of its employes, the many excellent features of which are but barely mentioned here, the initiative has always been taken by the workmen themselves, the company standing ready at all times to second their efforts with advice or financial assistance where plans of theirs were manifestly of too expensive a character to be carried out with their own resources. Only under such circumstances has the Celluloid Company or its individual officers ever taken a part in the projects of the workmen; whenever it became apparent that financial assistance was necessary, the same was forthcoming in measure sufficient to meet every requirement; but that difficulty overcome, the employes' control over that for which the money was expended and their responsibility for the results which followed, became absolute and undivided.

In the main outlines of every large enterprise undertaken by the workmen, they have had the assistance of the company, rendered in such a way as not to be even in the slightest degree suggestive of paternalism or patronage. Substantially all plans for improvement have originated with the workmen, but the company and its individual officers have always stood



❖❖❖  
Hallway fireplace ❖❖❖

THE CELLULOID CLUB.



ready to see that their aspirations were not defeated for want of means to carry them out.

What are the net results of all this to the business enterprise from which these various organizations have grown, and how have the moral qualities of the workmen concerned been influenced by the opportunities thus opened to them, are questions that may very naturally be asked.

Both are in a measure answered by referring to the gratifying fact that from the very start of its business career up to the present time, there has never been either strike, lock-out, or labor trouble of any kind to disturb the harmonious relations which have existed between the company and its workmen. Although the works are situated in a large manufacturing city, in which the many thousands of workmen employed in its widely diversified industries, have always shown a marked tendency toward the formation of labor unions, the Celluloid Company's employes from the time when, thirty years ago, they numbered only thirty-five persons and occupied part of one comparatively small building, until the present day, have steadily kept aloof from organizations for purposes other than those described here, although now, upwards of thirteen hundred operatives, housed in fifty or more buildings covering several city blocks, are employed in the various processes of the industry.

The attitude of the workmen in this respect has not been brought about by pressure of any kind on the company's part, as no attempt has ever been made to control or in any way limit their freedom of action. The operatives have learned from experience that everything necessary for their welfare, moral and material, can be secured by loyal co-operation with their employers and without forming alliances outside of the industry in which they are employed.

The policy pursued by the company in placing upon its employes full responsibility for the successful management of the club and its various allied organizations, is giving them a business training of high value which cannot but improve their qualifications as workmen through the development among them of original thought, which in turn must

surely lead, as it certainly has done in this case, to their becoming more valuable as workmen and more loyal to their employers than if they had not had these improving advantages.

The men work contentedly, knowing that the best is being done for them that business conditions permit, and that the interests of the humblest among them is not a matter of indifference to the highest officers of the great industry in which they are employed.

### **THE CELLULOID CLUB.**

#### **A Model Association of Employees.**

(BY S. T. SIMMONDS.)

The story of the Celluloid Club, of Newark, N. J., is written by its first president in response to a request for such information from the Bureau of Statistics of New Jersey.

The following is simply a plain statement of facts in regard to the circumstances leading up to its establishment, and also something of the details and results of club life as experienced by employees of the Celluloid Company. The writer does not feel that it is within his province to go into any elaboration of the larger questions that might easily become involved in an article of this nature, but will rest content with giving the facts, leaving to the reader's judgment for decision, the question as to whether the results accomplished by the Celluloid Company and their employees in this effort to better conditions, were worth while or not.

The idea of furnishing a suitable building to be used as a place for meetings and recreation by the employees originated with Mr. Marshall C. Lefferts, of New York, President of the Celluloid Company, who had observed that the workmen employed by the firm displayed a marked degree of ability in the way of organizing and managing several organizations of more or less importance, but that they were hampered by the difficulty of finding a place which might

be rented, large enough to accommodate the number usually belonging to the various social, beneficial and sporting organizations that were from time to time gotten up among the employes. Such institutions as insurance, which did not require much room for its work, did well enough, but the trouble of finding suitable accommodations, together with the expense, operated to discourage permanent associations on the large scale that was desired.

As the number of employes constantly increased, and the need of a spacious meeting place became more apparent, some of the men conceived the idea that if the matter were properly brought to the attention of the Celluloid Company, some old building or a large unused room on the property of the firm might be set aside and used as a meeting place in which to transact the business of the several organizations connected with the works. At first this seemed rather a large-sized favor to ask, but soon after the desire of the employes was made known, what proved to be a preliminary step in the matter of providing a splendid club house was taken, by the company causing a notice to be posted in the several factories requesting an expression of opinion by the men as to the desirability of having a building erected and furnished for exclusively club purposes. Of the total number of workmen employed, about five hundred signed a statement to the effect that if the Celluloid Company would provide a building such as was outlined in the notice, they, the employes, would do all in their power to make the club a continuous success and a credit alike to the company and its employes.

In the year 1899 the club house was built in a good residential neighborhood, and on a much larger and more elaborate scale than had been promised; the building and furnishings costing about forty thousand dollars (\$40,000). The building, fifty (50) by one hundred (100) feet, is four stories high, built of light colored brick and terra cotta. The house throughout is furnished in a very pleasing and substantial manner.

The basement contains two pairs of slate bowling alleys,

one pair of rifle ranges, two shuffleboard tables, lockers and boiler-room. On the first floor are spacious halls, reception, billiard and pool, cloak and bath-rooms, lavatories, business office, café and kitchen.

The second floor is taken up with a commodious and well supplied reading-room; the literature furnished is of an entertaining, instructive and helpful kind, comprising a library of about five hundred volumes; also a good supply of current publications, the very best of their several kinds, there being some eighteen separate daily, weekly and monthly papers, devoted to literature and news, including several foreign periodicals of a first-class order. On this floor are also a handsomely furnished ladies' dressing-room, card-room, officers' and committee-rooms. The entire upper floor is taken up by an auditorium or assembly-room, with well appointed stage and dressing-rooms. The assembly-room will seat about five hundred people. Here entertainments of various kinds may be held, and the seats being removable, a large floor space is available for dancing.

After its completion, the building was turned over to the club, whose members were given the use of the building free, the only condition attached being that it should assume the expense of taking care of the property. The entire management of the club is vested in the members absolutely, there being practically no restrictions whatever on the part of the company, except an understanding that no form of gambling should be allowed, and no whiskey sold on the premises. All the high officials of the company became members of the club without claiming or seeking to exercise rights or privileges of any kind not also allowed to the workmen.

The cost of club membership is twenty-five cents (\$0.25) per month. Some of the games are free, while a small fee is charged for others, such as bowling, billiards, pool, shooting and shuffleboard. The club house is open to members daily, including Sunday, from nine o'clock in the morning to midnight. Men occupying positions of responsibility in the company's service freely and cheerfully accept offices and committee appointments when asked to do so, allowing no



feeling like pride of rank to interfere with their desire to work unselfishly for the welfare of the club.

In the club house difference of position in the works is practically lost sight of, and it is a common experience to witness men holding important stations engaged in games with some of the youngest employes, and there is no feeling shown when the youngster wins out, as frequently happens.

Good dinners at a very moderate cost are furnished at the club house for members who live at too great a distance to go home at noon, and more pretentious lunches are, from time to time, provided in celebrating anniversaries, etc., of the many associations connected with the club.

While only the male employes of the Celluloid Company are eligible to membership, the management of the club looks after the enjoyment of the female employes by arranging frequent entertainments, dances, etc., one night in each month being regularly known as "ladies' night," when special invitations are extended to all the female employes of the company, who are then free to attend accompanied by their male friends, not necessarily club members.

The club began with four hundred and sixty (460) members. Provision is made allowing members to introduce friends into the club house, for whose conduct the member is held responsible, the only restriction being the number of times a week this privilege may be used. This arrangement is for the purpose of permitting members to have relatives and friends not employed by the company, enjoy the pleasure and privileges of the club house within reasonable limits.

The by-laws provide that members of the club who have been in the service of the Celluloid Company for ten years or more, and who leave honorably, may retain their membership for life by complying with the rules governing the organization. Employes who have not served the company for the length of time stated, and those who are discharged from employment, lose all privileges of the club house.

Should members be temporarily laid off from work, they may retain their membership while waiting to be re-engaged.

The result of club life with the employes of the company

has proved beneficial in every particular. The various departments of the Celluloid Company occupy a large area, with numbers of men working in many separate buildings; before the establishment of the club in very many instances men worked for the company for years without forming acquaintance with or taking any interest in, their fellow-workers in other departments of the company's service. Club life and associations have changed all this, and by working and associating together in effecting the organization and carrying on the work of the club, the employes gradually came to know each other and to realize that their interests were more or less identical, and to learn as well, that there were bright men and thoroughly good fellows in all branches of the company work.

Another result is that a friendly rivalry for supremacy in games has been developed. This feature is encouraged by some of the officers of the Celluloid Company, who donated a handsome trophy for the successful department team; also, gold medals for winners of individual championships. The competitions, while good natured, are of the most spirited kind, and disclose the fact that there are members possessed of more than ordinary skill in the many games played in the club house.

A dramatic association was formed, many of the members of which surprised their shopmates by the aptitude in this line displayed by them before the footlights. All the plays so far attempted have been very creditably performed, some of the club members showing a high degree of talent in rendering the parts assigned to them.

Through the generosity of a gentleman connected with the company a very complete set of gymnastic apparatus was furnished to the club. This exercise is much enjoyed by the younger element, who have a large class which is regularly drilled by a competent instructor.

In music the members find much pleasure, the boys gathering about the piano to sing while one or another of the members play.

Bowling is a very popular pastime in the club house. The

Celluloid Club has teams entered in both the Suburban and the Newark Leagues, the Suburban team winning the bronze trophy representing the championship of that league for 1901-02.

During the summer a base ball team, representing the Celluloid Club, is sent the rounds, and in seasons past has done very creditable playing, considering their necessarily limited opportunities for practice.

One of the most successful departments of the club's work is the Mutual Benefit Insurance. While a part of the club, this branch is considered important enough to have its own officers and board of managers. The insurance feature was started mainly through the expressed desire of the company to have an organized bureau to investigate claims for assistance, and also to help employes who might be unfortunate, and further, to provide a fund that would supply in a measure wages lost by reason of sickness or accident, and a funeral benefit in case of death. The premiums are very low, being two cents for each dollar of weekly insurance desired in case of sickness or other disability, and four cents weekly for a death benefit of one hundred dollars. The Mutual Benefit department of the Celluloid Club is a most decided success, doing a large amount of good by providing assistance at times when money is most needed, and that under such a plan as not to hurt the self-respect of members. The services of a competent physician are furnished free to members in all cases of personal sickness, not necessarily of such a nature as to disable them from work.

Some idea of the good work done by this department of the club is shown by the fact that during the first three months of the present year (1904) upwards of one thousand dollars (\$1,000) were paid out for sick benefits alone.

The officials of the Celluloid Company have shown a marked degree of interest in the working of the Mutual Benefit Association, and the company aided its start with a substantial contribution in order that funds should be available, if needed, before the young association had time to accumulate a sufficient amount of money to meet obliga-

tions from premiums paid by the members. This starting sum has not been drawn upon, but is considered as a sort of reserve fund, and the association has added a considerable amount to the original nest egg. The company also pays the salaries of the secretaries, who are the only officers that receive any compensation.

The experience is that the Celluloid employees' club has proved helpful all around. In the club house the members conduct themselves with proper decorum, and, while feeling perfectly free in the matter of selecting their amusements, are courteous in their intercourse with one another, the influences being wholly of an educating and refining nature.

Club experiences with the employees of the Celluloid Company go far to make life worth the living, and the sacrifice of time made necessary in the management of the various branches of club work finds competent, unselfish and willing members ready to assume any office, no matter how exacting the duties may be.

The families connected with the factory and their friends have learned by experience that the club house is so conducted as to be a perfectly safe and proper place for young women to frequent whether on stated social occasions, or ordinarily, as casual visitors in the company of members.

The club and the Mutual Benefit Association have each separate and complete sets of carefully thought out by-laws, the result of years of actual and successful experience with club and insurance organizations as applied to factory employees; and the officers are at all times willing to place such knowledge as they may have gained at the disposal of bodies of working people who may desire through some such efforts at organization to try the experiment of benefiting themselves and those around them by plans similar to those used to such good purpose by the employees of the Celluloid Company.

## The Clifton Silk Mills, Town of Union, N. J.

**Manufacturers of Broad Silk Goods.  
Employs 297 Males and 345 Females.**

About four years ago the Clifton Silk Mills Company organized a benefit society for the assistance of its employes, which has proved very successful. The company employs about six hundred and fifty (650) persons, and about one-half of them are members of the association. The incidental expenses, outside of doctor's fees, are all provided for by the company, so that practically every cent contributed by the employes is returned to them in the form of benefits. The benefit society meets the purposes for which it was established very well, and has now a substantial fund on hand.

Membership in the association is divided into three classes, the differentiation being on the lines of weekly earnings.

Class A embraces all whose earnings are ten dollars (\$10.00) a week or over; Class B includes those whose earnings range from six dollars and fifty cents (\$6.50) to ten dollars (\$10.00) per week, and Class C embraces all who are earning less than six dollars and fifty cents (\$6.50) per week. The entrance fees charged are regulated according to classes; for Class A it is seventy-five cents (\$0.75); Class B, fifty cents (\$0.50), and Class C, twenty-five cents (\$0.25).

The dues charged and benefits paid the several classes of members are as follows: Class A, fifteen cents (\$0.15), due every two weeks, benefits, seven dollars (\$7.00) per week; Class B, ten cents (\$0.10), due every two weeks, benefits, four dollars and seventy-five cents (\$4.75) per week; Class C, five cents (\$0.05), due every two weeks, benefits two dollars and thirty-five cents (\$2.35). Dues are deducted from wages by the company's paymaster and turned over to the treasurer of the association. A receipt for the amount taken from the wages of members is enclosed in their pay envelope.

To be entitled to sick benefits a member must have been

connected with the society at least one month, and is not to receive anything for disability lasting less than one week, nor more than a total of eight weeks' benefit in any one year.

The society also provides death benefits arranged by classes as follows: Class A, seventy-five dollars (\$75.00); Class B, fifty dollars (\$50.00); Class C, twenty-five dollars (\$25.00).

Members of the society may resign at any time by giving thirty days' notice to the secretary, during which time dues must be paid as usual. A member who leaves the employment of the mills or is discharged forfeits at once all right of membership; but if discharged the two previous payments of dues are restored when the member is finally paid off.

Proper notification blanks to be used in case of sickness or death are supplied to members, and these must be used in bringing claims for either form of benefit before the Board of Directors of the society. A visiting committee investigates all cases, and advises the Directors as to the facts underlying the claim.

The management of the benefit society is vested in a Board of Directors, four of whom are elected by the members, and one appointed by the Board of Directors of the mills. These serve for six months or until their successors are elected or appointed.

The Clifton Silk Mills Company shows a very earnest and intelligent interest in the success of this society, and states that it has in embryo many good plans for the benefit of its employes that have not yet been worked out.

Reference is made in the company's communication to the National Cash Register Company, of Dayton, Ohio, and the belief is expressed that its experience has discouraged many employers who contemplated pursuing a similar policy to an extent that can hardly be credited. "That company did almost everything that human ingenuity could devise for the benefit of its people, but in spite of this, directly some labor agitators came along and organized them, they went on strike for the most unwarranted reasons and treated their employers as if they were their personal enemies.

"There is practically no large employer of labor but who is aware of the circumstances of the case, and many who had laid various plans to establish some of the features that the National Cash Register Company had put in operation gave up the idea entirely on account of that strike in Dayton."



### **E. V. Connett & Co., Orange Valley, N. J.**

**Manufacturers of Fur Hats.  
Employs 500 Males and 100 Females.**

This firm has as yet no definite form of benefit or betterment institution, but has the details of very comprehensive plans along these lines now under consideration, some of which will, no doubt, be adopted in the near future.



### **Crescent Pearl Works, Vineland, N. J.**

**Manufacturers of Pearl Buttons and Pearl Novelties.  
Employs 26 Males and 2 Females.**

This company encourages its employes to offer suggestions looking to the expediting of work and the improvement of the various processes of production. A liberal bonus is paid those who furnish helpful ideas, and quite a large sum of money has been paid out on that account. Work is divided out on a plan somewhat resembling the task system. An accurate account is kept of each man's product, and additional pay is given him for each gross of buttons turned out in excess of the quantity required for a day's work. Sentiments of self-respect, coupled with a sense of individual importance and responsibility, have transformed the character of the workmen; timidity, lack of interest, and the merely perfunctory performance of duty have given place to manly confidence in themselves, and an

intelligent personal and collective interest in the business that furnishes them employment.

In the discussion of matters relating to their interests, the men are always met a good half-way, and consequently no friction of any kind with the firm is ever permitted to obtain even a starting point. There are neither strikes nor threats of strikes, and the workmen seem a happy and contented lot.



### **The Crescent Shipyard Co., Elizabethport, N. J.**

**Steel and Iron Shipbuilders.  
Employs 780 Males.**

This company reports that each of its employes contributes ten (10) cents from his wages each month, which goes to the two hospitals of the city.

The monthly contributions are given alternately to each hospital. In return, the employes receive free treatment when sick or injured.



### **Crocker-Wheeler Company, Ampere, N. J.**

**Manufacturers and Electrical Engineers.  
Employs 617 Males and 62 Females.**

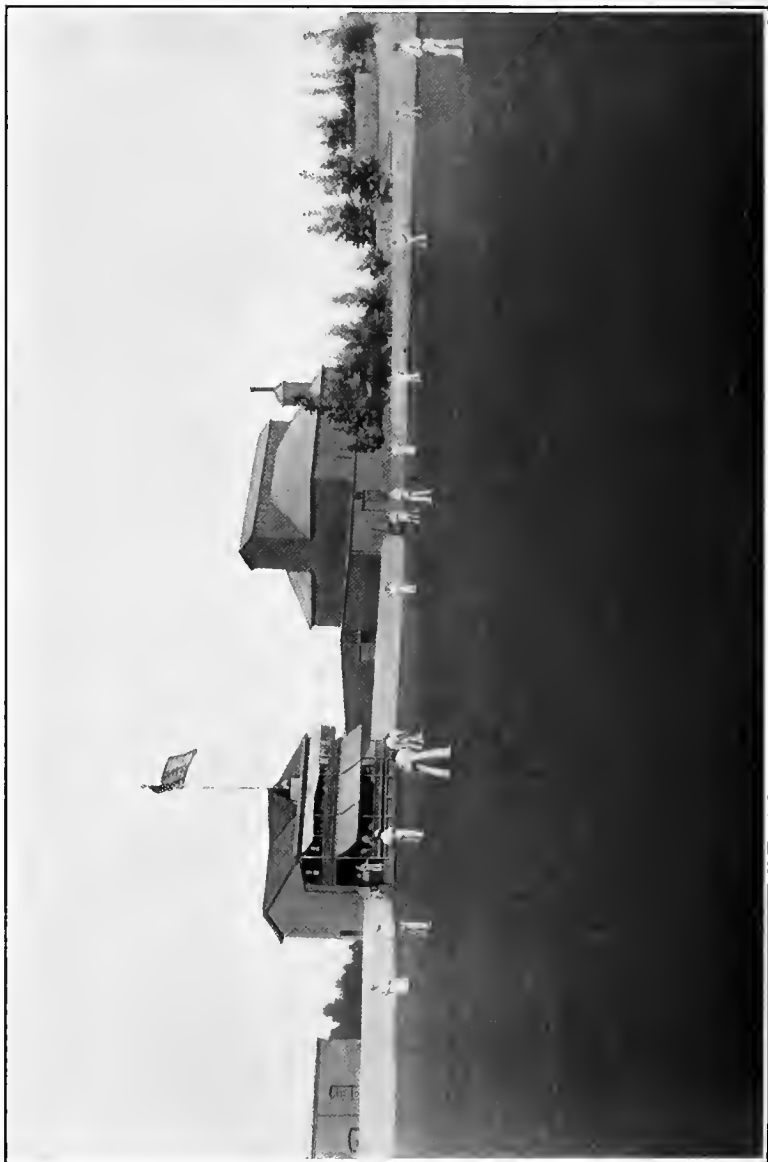
No benefit organization has as yet been formed, but the company is now contemplating the establishment of one, and the details of a satisfactory plan are at present being perfected.

The things now being done by the company for the special benefit of employes consist of furnishing facilities for healthful work, in rooms which are, with a few exceptions, well lighted and ventilated.

To insure personal cleanliness, there are numerous toilet-rooms with perfect modern equipments, to which employes have free access at all times.







CLUB HOUSE AND GROUNDS. HOWLAND CROFT'S SONS CO.

For safeguarding their belongings while at work, each employe has an iron screen locker, airy and secure, in which to keep his clothing and other personal property.

To provide for the occurrence of sickness or physical injuries: First—There is a supply of medicines, bandages, etc., kept on hand, in charge of a man competent to handle such sickness or accident cases as may occur until a regular physician or surgeon can be called in. Second—Two beds are maintained at Memorial Hospital, Orange, paid for by the company. Third—There is an arrangement with the Emergency Hospital, in Newark, whereby employes of the company can receive as much treatment as may be necessary, on payment of one dollar (\$1) per year.

To make the surroundings pleasant and agreeable to employes, the company has provided clean, well-ventilated and lighted buildings, with a pleasing and sightly environment of trees, shrubbery, lawns, gardens, and flower-beds.

These benefit features, only an outline of which is here given, were established by the voluntary action of the company, and represents, in part, the policy, uniformly pursued for years, of stimulating the self-respect of its workmen and making their surroundings while at work as pleasant and attractive as possible. The employes, it may be said, are, as a rule, contented and show appreciation of the advantages which they enjoy, and no disturbances of a serious character have ever occurred in the works.



## Howland Croft Sons & Co., Camden, N. J.

**Manufacturers of Worsted Yarns.  
Employs 215 Males and 340 Females.**

This company has provided a piece of ground in the immediate vicinity of its plant, which covers one entire city block, 400x225 feet; this has been fixed up for the purpose of cricket playing and for other forms of athletic exercises.

They have also erected a club house thereon, containing baths, reading and recreation rooms, with other features usually found in such buildings.

The club house is two stories in height; the first floor contains dressing-rooms, lockers, baths, reading-rooms, etc. The second floor is fitted up for the purpose of meetings, receptions, etc. The building has an open porch on the first and a balcony on the second floor, for the purpose of viewing the games and contests that take place in the field.

The grounds, club house, and everything they contain are under the absolute control and management of a club composed chiefly of the company's employes.

The accompanying illustration gives a view of the grounds and club house.



## Cumberland Glass Manufacturing Company, Bridgeton, N. J.

**Manufacturers of Glass Bottles, Fruit Jars, Storage Battery Jars,  
Window Glass, etc.**

**Employs 1,762 Males and 42 Females.**

This company has endowed a bed in a local hospital for the benefit of its employes. It has also a gymnasium or club-room and a bath-room for the special benefit of the boys, although it is open to all the workmen employed by the company.

There is a form of profit-sharing in vogue in the works in which, however, none but heads of departments and employes holding responsible positions are allowed to participate.

## Day, Clark & Co., Newark, N. J.

**Manufacturers of Fine Jewelry.**  
**Employs 65 Males and 25 Females.**

The employes of this firm have established what is known as an emergency fund. A certain sum of money is deposited weekly by each man, a company official receiving and taking charge of the money; from this the workmen draw, but only when they are strictly in need. This provident fund has accomplished great good, and for employes of the company, answers all the purposes of a savings bank. The custom is to distribute the unused portion of the fund at the end of each year, charging each depositor with whatever amount he may have drawn from it, and then beginning anew.

The fund is divided back to its owners each year to prevent too large an accumulation where it earns no interest. In some instances the shares of individual workmen are re-deposited in savings banks, and in others the money is used to meet some individual or family want which requires a larger expenditure than can be spared from current weekly wages.

All plans for the betterment of the employes are looked on sympathetically by the firm and assisted in every practicable way.



## DeWitt Wire Cloth Company, Belleville, N. J.

**Manufacturers of Brass, Copper, and Iron Wire Cloth.**  
**Employs 95 Males and 45 Females.**

This firm warmly expresses its interest in any movement having a tendency to improve the social and industrial condition of its employes, and as its own particular contribution to that end, has inaugurated a system of profit-sharing with them.

The plan is to place a certain allotment of the company's stock in the name of such employes as choose to invest in it, allowing them the privilege of paying for the same in in-

stallments. The safety of the investment is guaranteed by an agreement on the part of the company that stock owned by employes who may afterward leave its service shall be purchased back at par with interest, provided two weeks' notice be given of the intention to leave.

The plan was inaugurated on May 1st, 1903, and is now, therefore, in operation about one year. The number of employes who have thus far availed themselves of the privilege offered is eight, and two (2) semi-annual cumulative dividends of three (3) per cent. each have been paid on the stock.

Unqualified satisfaction is expressed by the company with the results thus far shown by the plan for making its workmen stockholders, and thus insuring their being personally interested in everything likely to make the business profitable and permanent.



### **Driver-Harris Wire Company, Harrison, N. J.**

**Makers of Resistance Wires.  
Employs 20 Males and 6 Females.**

This firm reports having had, until a year ago, or up to January 1st, 1904, a system of profit-sharing in operation at its works. The allotment per employe was five (5) per cent. on the wages earned.

The plan was abandoned because some of the employes had gone on strike about one month after the first payment was made.



### **The Edward Lumber and Coal Company, Long Branch, N. J.**

**Manufacturers of House Trimmings, Sashes, Blinds, Doors, etc.  
Employs 120 Males.**

The workmen employed by this company have an organization through which a weekly benefit of four dollars (\$4) is paid to sick or disabled members. The necessary

funds are raised by a pro rata assessment on all employees, and benefits are paid for six (6) weeks' duration of any one case of sickness or disability.



## Farr & Bailey Manufacturing Co., Camden, N. J.

**Manufacturers of Oil Cloth and Linoleum.  
Employs 270 Males.**

The employees of the Farr & Bailey Company maintain a benefit association, which is named after the firm, and the membership in which is limited to those at present in its employment; but members who leave the company to work elsewhere are allowed to retain their standing and interest in the benefit association for one year after the severance of their relations with the firm.

An admission fee of fifty (50) cents is charged, and the dues are fifty (50) cents per month, which must be paid in semi-monthly sums of twenty-five (25) cents.

The benefits paid by the association are five dollars (\$5) per week in case of inability to work not caused by immoral conduct. No benefit is paid for less than one week's illness, nor for a longer period than twelve (12) weeks in any one year, the year to begin with date of first week's benefit.

Upon the death of a member, a death benefit of one hundred and fifty dollars (\$150) is paid to the person who has been designated by him to receive it. In case no one is selected as beneficiary by the member, the money is paid to his wife or to his nearest surviving relative.

The Board of Managers of the benefit association has entered into a contract with the employing firm, under which the latter pay all the expenses of maintaining the association except the sick and death benefit. The paymaster of the company, or his representative, deducts assessments due by members from their weekly wages and pays the same over to the treasurer of the benefit association. The company also pays all assessments due from members who are

temporarily laid off but not discharged, and continues to do so until they are reinstated in employment. It also guarantees to make good any deficiency that may be found to exist in the funds of the association at the time of the annual meeting, after twenty-four assessments have been paid during the year, and to advance all moneys necessary to pay benefits at any time the funds in the treasury may be exhausted.

In the case of a member who has been ten or more years in the employ of the company becoming disabled and remaining so for a longer period than twelve (12) months, he is carried for an additional twelve (12) months at the same rate per week, the funds for that purpose being furnished by the company. There is also a provision in the contract which allows an additional twelve (12) weeks' benefit to members whose disability is the result of injuries received while on duty in the factory, the total amount of which is paid by the company.

During the year 1903, the association received from assessments one thousand two hundred and forty-five dollars (\$1,245), and twenty-nine dollars (\$29) from proposition or admission fees. The payments during the same period, on account of sickness and disability of members, aggregated eight hundred and thirty-five dollars (\$835), and the total membership of the association in good standing was two hundred and twelve (212).



## The Ferris Brothers Company, Newark, N. J.

**Manufacturers of Ferris Good-Sense Corset Waists, etc.  
Employs 30 Males and 325 Females.**

The factory of this firm is situated in one of the pleasant residence districts of the city of Newark, and is a commodious, modern structure, in the construction of which every known means of providing the most perfect sanitation and ventilation were used.





RECREATION HALL FOR GIRLS. FERRIS BROTHERS' WORKS.





DRESSING-ROOM FOR GIRLS. FERRIS BROTHERS' CO. WORKS.



The pleasant and commendable features of administration that distinguish this factory among others are not of recent origin. From the very beginning of business it has been the policy of the firm to deal with its employes in a spirit of friendliness that must inevitably have brought them and their employers together in the bonds of mutual good will which have ever since then existed between them. The institutions that are briefly described in the following pages have been in operation ever since the works were started here, eighteen years ago. They have stood the test of time, and must, therefore, be regarded as having been productive of results of a character highly satisfactory to both employers and employes.

What the firm has done and is now doing for the betterment of its employes is for them solely, and has never been, to even the slightest extent, associated with a desire to obtain the kind of notoriety therefrom which might be regarded as beneficial to its business. The idea from which all proceeds is that kindness and courtesy should be the natural basis of all relations, whether they be of a social or of a business character, and that the efficiency of operatives is not diminished, but rather more certain to be increased by the pursuit of a policy which strengthens their self-respect and removes from their environment while at work, so far as it may be possible to do so, the disagreeable features commonly associated with factory life.

To do these things and much more has been the controlling motive in the course pursued by this firm in the regulation of everything relating to its factory administration.

Of the total number of operatives employed by the Ferris Brothers' Company, fully ninety per cent. are females, which circumstance makes the thoughtfulness displayed in their treatment particularly worthy of commendation.

To make a living for themselves and often also for others dependent upon them, is the unavoidable lot of many thousands of women and young girls. This they must do even if the factory surroundings—for it is to light manufactur-

ing that a majority of women so circumstanced look for employment—are ever so uncongenial.

In the Ferris Brothers' factory it may be truthfully said that everything of a disagreeable nature has been absolutely eliminated. The girls are treated with the uttermost respect, and the little courtesies so dear to every woman in either business or social intercourse, is freely accorded to them here.

In the factory no girl is ever addressed by name without using the prefix, "Miss," and all with whom they are brought in contact while on duty at the factory, are required to and do regulate their conduct toward them by the same rules of politeness that are observed by well-bred men and women in the ordinary intercourse of life.

The material comforts surrounding these girls in the factory and the privileges of an unusual kind which they enjoy are many. The factory is situated in a pleasant and slightly location, and, as before said, everything possible has been done to secure satisfactory ventilation and sanitation. In winter, the entire building is kept heated at an even temperature, and at other seasons, precautions are taken to secure a free circulation of air through open windows without subjecting the operatives to the dangers resulting from draughts.

The firm keeps for the use of the girls a large stock of umbrellas, water-proof cloaks and rubber shoes. These are loaned them in case a storm should arise at quitting time, and free hosiery is provided in case of coming to the factory with wet feet in the morning.

The girls are not required to report for work promptly when the seven o'clock whistle blows in the morning, but are given a reasonable time of grace without fine or other deduction from their pay.

A large, clean and well-appointed dining-room is provided, and the girls may enjoy their mid-day meal there or go to their homes for that purpose, whichever is most convenient for them. Tea is served free of cost to those who remain, and for the nominal sum of two cents, a plate of soup, either beef, ox-tail, mock turtle or chicken, may be had with an



LUNCH-ROOM, FERRIS BROTHERS' CO. WORKS.





abundant supply of crackers. Everything on the menu is prepared in a kitchen on the premises by a competent cook who is permanently employed. A light lunch is served in the morning between starting time and the noon hour to those who desire it.

There are five bath-rooms in the building for the convenience of the girls, and they are at liberty to use them at any time during working hours without deduction of pay for the time taken. The firm has a woman in constant attendance at the bath-rooms who has charge of them and furnishes clean towels and other requisites. In the dining-room another woman is steadily employed, who takes charge of the table linen and cutlery.

Other important features are a lounging and dressing-room for the girls, and a recreation hall. In the lounging-room are couches and blankets; to this place a girl may retire from work at any time for rest; or, if she is taken ill and finds herself unable to go home, everything necessary for her comfort is provided there.

The recreation hall for the girls is furnished attractively with handsome easy chairs and pretty rugs. At one end are rows of settees and a centre table supplied with all the latest magazines and periodicals. A grand piano is part of the furnishings, and during the hour from twelve to one o'clock, or for as much of the time as remains after lunch, the girls use the room to sing, dance or read as each one may choose, while those who desire rest are at liberty to retire to the comfortable couches of the lounging-room. It is also the custom to permit the free use of this room to the girls for a half hour in the middle of the morning and again for the same length of time in the afternoon. Flowers and plants contributed by the girls are placed in the windows; these lend an air of beauty and refinement to the rooms which adds greatly to their attractiveness.

The goods manufactured in this interesting factory is known as the "Good Sense Waist," and it may be positively said that good sense, giving that term its broadest meaning,

is displayed throughout the works of the Ferris Brothers Company in every department.

The girls do no hard work which requires muscular exertion. Their daily task is performed on sewing machines which are run by steam power, leaving nothing for the operator to do but to guide the work with her hands.

The work-rooms are large and airy, with high ceilings and many windows, and are always kept in a condition of absolute cleanliness. Employment here is much sought after by girls in Newark who earn their own living, and few who once succeed in getting in ever leave this factory while the necessity of earning their own living continues.

The wages of girls in the employment of the Ferris Brothers Company are at least equal to the highest paid in any factory engaged in the same line of business elsewhere. Indeed, it may be safely asserted that operatives here earn more on the average, because they are, on the whole, by reason of the peculiar advantages which they enjoy, likely to be more efficient and intelligent workers than those who are not so happily situated.

If this were not so, if the earnings were not equal at least to what could be obtained elsewhere, the moral and material advantages enjoyed in this factory would not be sufficient to hold the operatives; much as they might and do appreciate them, they probably would, with a few exceptions, go where the most money could be secured.

The Ferris Brothers Company surrounds its employes with incomparable personal comforts, and also pays them wages at least equal to the best paid in establishments where obtaining the maximum of profits from the labor of employes is the fundamental policy of the management. Neither the Ferris Brothers Company nor its employes maintain any form of benefit association, but should an employe become sick or disabled and therefore unable to work, he or she is taken care of by the firm to the fullest extent that the circumstances of the case require. In fact, such is the spirit of mutual interest and good will pervading the relations of employer and employe in this admirable establishment, that



WORK-ROOM. FERRIS BROTHERS' WORKS.





WORK-ROOM. FERRIS BROTHERS' CO. WORKS.



an operative in trouble may always depend on assistance from the firm, no matter what the cause of his or her difficulty may be.

It may be superfluous to refer to the question of whether the policy pursued by the Ferris Brothers Company toward its employes pays in a commercial sense. A sufficient answer to such a query will be that the system has now been in operation for the past eighteen years, and although the course of the founders of the firm in adopting it was not influenced in even the slightest degree by the question of whether or not it would pay, that is to say, in the sense of becoming a distinct element contributory to the profit of the business, still, it has unquestionably paid for even that point of view.

The plan was adopted because the founders of the firm were broad-minded and generous enough to regard the animated human part of the machinery of production as being at least equal in importance to the inanimate and material kind and entitled to as much care.

It is profitable in the merely money sense, because the generous and courteous treatment accorded the employes has earned their sincere gratitude and called forth the best they are capable of doing in the interest of their employers. Discontent in any form is utterly unknown; no strike has ever occurred among the operatives of this firm, and the results which elsewhere are too often sought by treatment bordering on severity and repression, are here realized through co-operation between employer and employe based on lines of kindness and reciprocal loyalty.

## Florence Thread Company, Florence, N. J.

**Manufacturers of Glazed Thread and Yarn.  
Employs 32 Males and 34 Females.**

Employees of this company have the use of all the facilities and institutions which R. H. Wood & Company (Florence Iron Company), situated in the same village, provides for its employees. For a detailed description of these, see the title R. H. Wood & Company, Florence, N. J.



## W. D. Forbes Company, Hoboken, N. J.

**Manufacturers of Machinery.  
Employs 60 Males.**

This firm and its employees acting together carry on a Mutual Insurance Fund which has given unqualified satisfaction to everyone concerned. The benefit is operated on the following lines: Each workman and apprentice, together with all the employees of the office, contributes twenty-five cents (\$0.25) per week to the fund; the company paid in one hundred dollars (\$100.00) as an emergency fund, which is not to be used except in instances where the treasury does not contain enough money to meet the demands for sick benefits.

Any employee who becomes disabled through accident or illness and is unable to work, is, after the first two weeks of disability, taken care of by the benefit fund, which thereafter pays him four dollars (\$4.00) per week for a period of twelve consecutive weeks. Should the disability continue beyond that period of time, other steps are taken by the employees and the firm jointly to take care of the afflicted workman.

While sick, a member is excused from the payment of dues, and in the event of his death fifty dollars (\$50.00) death benefits is paid to his heirs or to such person as may have been designated by him to receive it.



A rule of the insurance fund requires that the unexpended balance in the treasury, less the emergency fund of one hundred dollars (\$100) above referred to, be distributed back to the subscribers in the form of a dividend at the expiration of each calendar year. This practice is found to be productive of very satisfactory results; the interest of members is increased because the money paid in to the fund comes to be regarded by them as not only an insurance, but also an investment from which the persistent members receive returns that are very good in proportion to the amount paid in.

Twenty-six (26) members participated in the annual dividend for the year 1903, ten months being the longest time of membership. The aggregate number of months for which dues were paid by these twenty-six (26) members in good standing was two hundred and seventy-one (271), the money so paid amounting altogether to two hundred and ninety dollars and twenty-five cents (\$290.25).

The total amount of money paid into the treasury of the fund, with the interest on deposits and including also lapses, was, for the year 1903, three hundred and thirty dollars and sixty-four cents (\$330.64). At the annual division, which took place on December 20th, members in good standing received a dividend which amounted to one dollar and sixty-four cents (\$1.64) more than they had paid in. Immediately after the annual division of the surplus money in the treasury has been made, the payment of weekly dues not having been interrupted, money again begins to accumulate, the company's contribution of one hundred dollars (\$100) being meanwhile available to relieve urgent claims if any such arise before the funds from weekly dues have grown sufficiently large to meet them.

Everything connected with the insurance fund and its management seems to work smoothly and with satisfaction to all concerned. The workmen appreciate its advantages, and in the matter of administration it is taken care of with but little labor or expense. The management is in the hands of officers chosen annually from among the office force and the workmen.

The company has adopted the system of paying every man in its employment his full wages on Friday night, keeping nothing whatever back. This allows the wives of the workmen to go early to market on Saturday morning, when much better goods can be purchased than late in the evening.

The factory is run ten hours every day except Saturday, when work ceases at eleven o'clock; the working time is therefore fifty-four (54) hours per week. This system seems to work most admirably; the workmen go home, change their clothes, and have the full afternoon to themselves.

These things are done by the company without pressure of any kind from any source. They are simply a free-will offering to the good and welfare of its employees, given in recognition of the moral obligation devolving upon employers to consider the reasonable interests and desires of their workmen, so far as the practical rules of business and the efficient operation of industry permits this to be done.

The relations of the firm with its employers are very cordial, and no outside influence of any kind is permitted to disturb the harmony existing between them.



## Gibson Iron Works Company, Jersey City, N. J.

**Iron Founders and Machinists.**

**Employs 50 Males.**

This company follows an exceptionally liberal policy in the matter of bettering the condition of its employees, which was adopted several years ago.

The plan consists in part of taking out life insurance policies on the tontine principle, for from \$1,000 to \$2,000, for each man who has been in its service for a term of five years and over. The premiums are paid by the company as long as the men remain in its employ. The plan has worked well and gives perfect satisfaction. The workmen employed by the company are exceptionally sober and industrious and of excellent moral character; a large number

have been with their present employers for from five (5) to fifteen (15) years.

Several years after the insurance plan was put into operation, a further and a still more important step was taken by the Gibson Iron Works Company for the benefit of its especially worthy employees. At the beginning of this year (1904) the business was incorporated, and out of a capital of \$60,000, \$5,000 worth of the stock was divided among ten of the leading employees who were thought worthy of receiving it. The recipients of this stock were not asked to pay for it, their long and faithful services as employees entitling them, in the judgment of the company, to receive it without cost.

No stock of the company is sold outside of the corporation, nor would a single share of it be sold at any price. With employees who receive the stock, the company has made the provision, by agreement, that for the consideration of one-half of its face value in spot cash the stock shall revert back to the company at the expiration of active service in its employment, or at the death of the holder; so that under no conditions can the stock go to anyone outside of the present corporation.

The company has also pledged itself that merit and quality in the conduct and work of its employees shall continue to be recognized by further gifts of stock.

Another plan of the company which has been long in practice relates particularly to the neighborhood in which the works are situated. It has always tried to cultivate friendly relations with and endeavored to be on good terms with the people composing the tenement population. The practice has been, on Decoration and Labor days of each year, to collect fifty (50) to one hundred (100) children who live nearest to the works and send them on an outing free of expense to them or their parents. Sometimes they are carried by trolley cars, and at other times they are taken out to the woods in some suburb of the city in the company's wagons. Abundance of refreshments are provided, and all expenses paid. The company is very much pleased

with the results of this plan, as the interest and friendliness of the children of the neighborhood is secured, and property otherwise unprotected is cheerfully taken care of by them.

The company is strongly of the opinion that if manufacturers would pursue the same policy toward the mothers and children of the neighborhoods in which their factories are situated, the results would return them ten-fold the expenditure which such a plan would cost.

It is scarcely necessary to add that the employes of this company are a contented lot of men, and that there has never been a strike among them.



### **L. Goldsmith & Son, Newark, N. J.**

**Manufacturers of Trunks.  
Employs 50 Males and 5 Females.**

Employes of this company have a mutual aid organization, of which all are members. No pressure of any kind is used by either the firm or the organization to induce workmen to join; they do so because of the manifest advantages derived from membership.

Ten (10) cents per week is charged as dues, and the weekly benefit payable in case a member is disabled through sickness or accident is five dollars (\$5). In the event of a member's death, all necessary expenses of the funeral are defrayed by the benefit society, the firm giving whatever assistance may be required.



### **Gould & Eberhardt, Newark, N. J.**

**Manufacturers of High-Class Machine Tools.  
Employs 350 Males.**

This firm states that the only feature of a benefit or betterment kind in operation at its works is an Employes Mutual Benefit Association, which is managed and con-

trolled entirely by the workmen. The firm has nothing to do with it, except acting in an advisory capacity when requested to do so by the men.

The views expressed by the firm regarding the various forms of benefit systems, given with clearness and force, are well worthy of consideration for the philosophic suggestions which they contain. The belief is expressed that such institutions do not pay, either from the business or economic standpoint. Quoting the firm's letter on the subject: "We do not believe that it helps the man to give him something for nothing, nor do we believe that he wants it. We have seen, in a great many instances throughout the country where various plans of this kind have been tried, that the men rather resent it and come to look upon it as a charity which is not desired. We believe in giving a man a chance to earn his recreations, rather than provide them for him gratis, and we feel that all plans worked out on a basis of giving the man something for nothing are bound to fail, for the very reason that it can be nothing other than more or less of a charitable distribution, and that the American workman is above anything of this nature."



### C. Howard Hunt Pen Company, Camden, N. J.

**Manufacturers of Round-Pointed Pens.  
Employs 19 Males and 109 Females.**

This company has placed a certain amount of stock in the name of the heads of every department in its works and also its leading salesmen. The stock is to be paid for by dividends earned, the only restriction placed upon it is, if the holder should die the company reserves the privilege of buying the stock at whatever amount has been paid on it plus an equal share of any surplus that shall have accrued to the stock.

The company has also instituted a rule giving to each operative who is regular in attendance to his duties every

day of any calendar month, one day vacation with pay, so that operatives who have been fortunate enough to have worked every working day in the year, have two weeks vacation with full pay for the time. The hours of labor have been reduced from ten to eight per day, and certain machinery formerly in use that had caused considerable injury to operatives, has been replaced by modern types, which causes no further trouble of that kind.

Other reforms and projects for improving the condition of operatives are being planned and will be put in operation when perfected.



### **Hygienic Chemical Company of New Jersey, Elizabethport, N. J.**

**Manufacturers of Chemicals.  
Employs 30 Males.**

The company has furnished a bath-room, with hot and cold water, also soap and clean towels, free, and every employe is allowed twenty minutes once a week during working hours for bathing purposes without deduction of wages. The only formality required is application to the foreman for a bath ticket. There is no restriction as to the use of the bath after working hours except the avoidance of conflict.

The employes are contented and seem to appreciate the interest which the company takes in them.



### **The Ingersoll-Sergeant Drill Co., Phillipsburg, N. J.**

**Manufacturers of Air Compressors, Rock Drills, etc.  
Employs 775 Males.**

The employes of this company, acting in co-operation with the firm, have established a benefit association on a very comprehensive plan, which has been in operation since 1898.

The results are highly satisfactory and all concerned as

contributors or beneficiaries agree that the system has been productive of much good.

The plan on which the association is organized provides, as shown by the constitution, that the Board of Directors shall consist of five members, three of whom are elected by the employes from among themselves and two appointed by the company.

None but employes of the Ingersoll-Sergeant Drill Company and Haesler-Ingersoll Pneumatic Tool Company, above the age of fifteen (15), and under the age of fifty-five (55) years, are admitted to membership; but persons above the maximum age may become members if they have been in the employment of either of the companies named for a term of two years, on condition that they obtain a physician's certificate of good health.

Persons ceasing to be employes forfeit membership in the benefit association and have no right in it thereafter, except such as may have accrued and been awarded them by the Board of Directors previous to leaving the company's employment.

The membership dues are fixed at twenty-five (25) cents per month, for which the following benefits are paid:

1. Five dollars (\$5.00) per week for disability resulting from accident or sickness.
2. One hundred dollars (\$100.00) burial fee in case of death resulting from disease or accident otherwise than as hereinafter provided for.
3. Five hundred dollars (\$500.00) in case of the loss of a hand or foot resulting from accident while at work, or in going to or returning from same.
4. Two hundred dollars (\$200.00) in case of the loss of an eye through accident while at work.
5. One thousand dollars (\$1,000) in case of total blindness or other total disability resulting from accident while at work, or in case of death resulting from accident while at work, or in going to or returning from the same; provided, however, that such result shall have occurred within one year from the time when the injury was received.

6. Benefits are not cumulative, and the greater benefit shall cover the less, and if the lesser shall have been paid, it shall be deducted from the greater benefit accruing to the same person from the same injury.

7. No claim shall be allowed for loss of life or limb, or any other injury occasioned by the injured party being upon the tracks of any railroad, except at public or necessary and usual crossings of the same.

8. Failure to make payment of dues within the proper time forfeits the right to all benefits.

9. Weekly sick benefits shall not begin until after one week's sickness, and shall date from the beginning of the second week; weekly accident benefits shall begin from the date of the accident; provided, that no benefits shall be paid for the first week on account of an accident or injury that does not show external marks.

10. Weekly payment of benefits shall continue for only four (4) months for any sickness or injury resulting from the same disease or accident; but such payments may be extended for an additional period not exceeding two months, by a vote of the directors.

11. Members are not entitled to and shall not receive benefits for disability or death occasioned by accident or injury received, or disease contracted before becoming a member, or caused by intoxication or the violation of any law, or by willful or gross negligence on his part.

The accident which shall entitle a member to benefits shall be such as he is exposed to in his employment, or in going to or returning from the same.

The Ingersoll-Sergeant Drill Company acts as treasurer of the association and supplies all necessary office room and clerical service without cost to the association. The company also gives to the treasury each year a gratuity equal in amount to the dues contributed by its employees. The Haesler-Ingersoll Pneumatic Tool Company, whose employees are eligible to membership in the benefit association, follows the same policy of duplicating the payments made by their workmen.



The company reserves to itself the right to cancel its agreement and end its connection with the association by giving six months' notice to the Board of Directors of its intention to do so. In such case, provision is made for the dissolution of the association. In the event of this taking place, the constitution provides that the surplus money in the treasury of the association shall be used for securing hospital privileges for employes of the company, or turned over to any mutual benefit association organized to take the place of the one that has been dissolved.

Three thousand dollars (\$3,000) is the maximum amount of money to be retained in the treasury of the association as a guarantee fund. All surplus above three thousand dollars is awarded from time to time in sums not exceeding five hundred dollars (\$500) to one person, to employes of the company who have been in its service for ten years or more, and are permanently disabled because of old age or any of the causes for which benefits are paid. Such awards are wholly at the discretion of the Board of Directors, and are made only in cases that are in every way meritorious and deserving.

This association and the work it has planned to do and is doing shows how thoroughly all the protection afforded by ordinary life and accident insurance can be secured for workmen in large industrial establishments through the intelligent co-operation of employes and employers.

The benefits of such a plan to both the firm and its workmen are very far-reaching, the advantages to the latter being of course in the most concrete form. For them it is a guarantee of immunity from the distressing poverty that often follows illness, and to their families it is a sure protection against at least immediate want in case of the bread-winner's death. The liability of the employer is amply repaid by the closer and warmer personal interest which workmen are sure to take in the business from which they draw a present livelihood, and to which, in the event of their disability or death, the dependent ones may confidently look as a matter of right

for that sympathy and material help which goes so far toward comforting those who are thus afflicted.

It is hardly necessary to say that the best of feeling exists between the company and its employes, and that these pleasant relations have never been interrupted by a misunderstanding of any kind.



## The Johnston & Murphy Shoe Co., Newark, N. J.

**Manufacturers of Fine Shoes.  
Employs 300 Males and 115 Females.**

The employes of this company have a benefit society of about sixty members; the dues are ten cents (\$0.10) per week, and the sick or disability benefit five dollars (\$5) per week.

The society also provides a burial fund, from which twenty-five dollars (\$25) is paid toward the funeral expenses of a member.



## Keuffel & Esser Company, Hoboken, N. J.

**Manufacturers of Mathematical and Surveying Instruments.  
Employs 425 Males and 48 Females.**

This company's line of manufacture is of a kind that requires a high degree of skill on the part of its workmen. The factory buildings are kept clean and well ordered, and much attention is given to ventilation and sanitation.

The employes have a sick-benefit society which has a membership of one hundred and sixty-six (166). The constitution and by-laws of the society, a copy of which was kindly furnished by the company, provides that its name shall be the Sick-Benefit Association of the Employes of the Keuffel & Esser Company, and its purposes, to aid its members in case of sickness.

Anyone between the ages of eighteen (18) and fifty (50) years of age who is employed in the works of the company and desires to join the association can do so, subject, of course, to a vote of the members. The admission fee charged is two dollars (\$2).

The monthly dues are fixed at forty (40) cents, which must be paid promptly, under penalty of forfeiture of benefit during the month for which payment has not been made. Members are allowed to fall in arrears for three months' dues, after which, having been notified by the secretary, one week is allowed for paying up all arrears; failing to do this, the delinquent member is expelled at the next meeting of the association. An expelled person cannot be again admitted to membership until six months after expulsion.

The association allows its members, in case of sickness, a benefit amounting to the total sum of one hundred and seven dollars (\$107), as follows: Six dollars (\$6) a week for a period of twelve (12) weeks, and three dollars and fifty cents (\$3.50) for a period of ten (10) weeks, no matter what interruption there may be. With the drawing of this sum the membership of the recipient practically ceases. Should he desire to continue his connection with the association, he must be proposed for membership again, and present with his application a physician's certificate of the state of his health. If reported on favorably by the physician, the member may be admitted again, even if not any longer employed in the factory, or if he should have already passed the age limit of fifty (50) years. A new admission fee in such a case is not required.

Members must be in the association for a period of three months before they are entitled to benefits, and no payments are made for sickness or disability that lasts less than three days. Benefits may be withheld from members found engaged in work for which their physical condition unfits them, and benefits are not allowed to a member on account of an incurable sickness or disease, if it can be shown that he had already been suffering with such sickness or complaint

before being admitted to membership without the same having been mentioned in his application.

Besides the weekly relief paid during sickness or disability resulting from accident, the sum of seventy-five dollars (\$75) is paid on the death of a member from the funds of the society, and twenty-five dollars (\$25) additional from the officers of the company.

There is thus assured to the family of a deceased member an amount of money (\$100) sufficient to meet the expenses of a respectable burial, which is the joint offering of his fellow-workmen and his employers. On the death of the wife of a member the sum of fifty dollars (\$50) is allowed by the benefit society.

A visiting committee of three members, who are appointed by the president to serve one month, are required to visit patients once a week, and must sign their names to the call-book left with every member who is on the sick-list.

The president and the visiting committee have power to cause an examination to be made of a patient at any time. Should the physician report the member able to work, no benefit will be allowed.

A member who leaves the employ of the Keuffel & Esser Company may continue his relations with the benefit association if he lives anywhere within a radius of twenty-five (25) miles of the factory.

The social relations existing between the Keuffel & Esser Company and its employes are now and always have been of a most intimate and cordial character. Both appear to appreciate fully the advantages to be mutually derived from a knowledge of each other which extends beyond the limits of factory routine. It has, therefore, been the custom for years back to indulge in an annual picnic in the summer, and a masquerade ball or other affair in the winter, in which all the employes and members of the firm with their families make it a point to participate. Closer acquaintance, mutual respect, and good will between all naturally grow out of these frequent meetings for pleasure, and the possibilities of friction between the employers and employes,

which often springs from the lack of real knowledge of each other, are very largely guarded against.



## Keystone Leather Company, Camden, N. J.

**Manufacturers of Glazed Kid Leather.  
Employs 501 Males.**

The employes of this company have a beneficial society which is conducted under the name of "Employees of Keystone Leather Company Yearly Beneficial Association." This association was formed for the purpose of aiding those who are taken sick or who may become disabled by accident, and assisting the families of members in case of death.

At the present time (May, 1904) eighty-two (82) employes are members. The dues amount to fifty (50) cents per month. The benefits paid to sick or disabled members are five dollars (\$5) per week for a period of six weeks, and three dollars (\$3) per week for the further duration of the sickness or disability.

On the death of a member the sum of fifty dollars (\$50) is paid to his family to assist in meeting the expenses of burial.

The company contributes liberally to the funds of the association, and in all possible and necessary ways encourages the efforts of its employes in this and other directions that may lead to their social and industrial improvement.

The belief is expressed by the management that the influence of the beneficial society on the conduct of its employes is good, and that, in an indirect way, at least, the business of the company derives some advantages from it.

## **S. Klaber & Company, Carlstadt, N. J.**

**Workers in Artistic Marbles, Mexican Onyx, and Bronze.  
Employs 70 Males.**

This company carries accident policies for all its employes, which important protection is provided without cost to them. This is done notwithstanding the fact that in New Jersey there is no statutory regulation of employer's liability for accidental injuries sustained by employes while in the discharge of their duties, and that at common law, recovery of damages cannot be had if the workman was injured through either his own or a fellow employe's negligence. In fact, what the firm is doing in this respect is an act of pure benevolence to its workmen and their families unmixed with anything akin to selfishness.

In its communication on the subject of betterment institutions the firm states that some time ago it endeavored to institute a system of sickness, accident and death insurance among its shop employes, and offered to contribute as much to the fund as the entire contributions of the men would amount to. The employes showed no disposition, however, to accept the offer, and since that time the firm has not again called the matter to their attention.

The best of relations exist between the firm and its employes, many of whom have been in the service for from ten to eighteen years.



## **L. O. Koven & Brothers, Jersey City, N. J.**

**Manufacturers of High-Pressure Galvanized Range Boilers.  
Employs 95 Males.**

Although neither baths, reading or club-rooms, or indeed any of the concrete forms of special benefit features are established in the works of this company, yet the uttermost possible care has been and is being exercised by the company in the construction and management of its works to the end that the health and physical well-being of its employes may be protected and improved.

The factory buildings are built of brick, painted white inside throughout, with ceilings fifteen to eighteen feet high. The buildings, which are steam-heated, are provided with exhaust fans. One-half of the wall space in all buildings is taken up with windows or doors, thus giving ample light and fresh air to the interior of all rooms. Each department is provided with wash troughs and all other necessary sanitary arrangements for the use of the men.

The company contributes funds to the maintenance of two hospitals that are situated in the neighborhood of the works, and in which employes can have surgical or medical care when either is needed. Contributions are also made to the funds of the Young Men's Christian Association and the Boys' Club. These institutions have reading-rooms and provide lectures, games, athletic classes, baths, bowling alleys, and many other forms of mental and physical exercise of a high order, to which the firm employes have free and welcome access.

Much thought has been given to the question of incorporating in the business management of the firm, some practical features that would be alike advantageous to employers and employes, and after mature consideration the conclusion was reached that the best that could possibly be done for both interests would be to provide the works with the best types of machinery, and to have spacious halls with perfect light and ventilation. This has been done. A place has been provided for every tool and for all material.

Every part of the factory, as well as the machinery, shelving, closets and floor space is kept free from dust and dirt of all kinds. Proper receptacles are provided for all waste matter, and these are under the care of especially delegated persons, whose duty it is to see that the same is properly disposed of. Sanitary arrangements throughout the factory are plain but ample, and of the very latest and most perfect types.

No attempt is made to provide in the works for the education or recreation of employes. It has been found that the firm's employes do not look on such things with particular

favor. After leaving work they wish to conduct themselves as they please and spend their spare time as seems to them best.

The firm has indirectly done much for its workmen by assisting every project which tends to raise the standards of character and education in the communities in which they reside. Sentiments of the most perfect harmony and good will has long characterized the attitude toward each other of the firm and its employes.



## John Lucas & Company, Gibbsboro, N. J.

**Manufacturers of Colors, Paints, Enamels, etc.  
Employs 237 Males and 39 Females.**

The employes of this firm have a benefit association which they have named the John Lucas Beneficial Association; they also have a lyceum and a building and loan association.

Membership in these organizations is not confined to employes of the company although these constitute a large majority of the total number enrolled, but outsiders may acquire all privileges on the same terms as those who work for the firm.

The purpose of the benefit association is to provide a fund to be paid to members who by reason of illness or accident shall be unable to pursue their ordinary occupations. The admission fee charged varies according to the age of the applicant. The rates are as follows: Under twenty (20) years, \$1.00; from twenty (20) to thirty (30) years, \$2.00; from thirty (30) to thirty-five (35) years, \$3.00; from thirty-five (35) to forty (40) years, \$4.00; from forty (40) to forty-five (45) years, \$5.00; from forty-five (45) to fifty (50) years, \$6.00.

Membership dues are fixed at ten (10) cents per week, and members become beneficial only after the expiration of one year from date of admission to the association.

The weekly allowance in case of disability through acci-



dent or illness is fixed at five dollars (\$5.00) per week for a period of ten (10) consecutive weeks, and three dollars (\$3.00) per week for the full remaining time of disability; provided, a certificate of the attending physician, approved by three (3) members of the visiting committee, vouching for the disability, be filed with the Board of Directors. The association also pays a funeral benefit of seventy-five dollars (\$75.00) on the death of a member, and fifty dollars (\$50.00) in case of the death of a member's wife.

A rule of the association forbids the payment of funeral benefits directly from the treasury when such payments would reduce the amount in hand below three hundred dollars (\$300.00). Under those circumstances the death funds are collected from members in the form of a special assessment.

Of equal or perhaps even greater value to workmen employed by this company than the association described above, is the building and loan society, the membership of which is composed of employes. Through the medium of this association thrift and prudence is greatly encouraged, and a safe and profitable investment provided for their savings. A large number of the firms' employes have built or purchased homes for themselves through the financial help thus put within their reach, and many others are now steadily progressing toward the same much-desired goal.

The material interests of the employes of this company are amply provided for by these two associations. From one of them—the benefit association—is derived the advantage and security afforded by insurance against total loss of income through accident or sickness, and also the means whereby the immediate expenses of burial may be met in case of the family losing its bread-winner by death; the other—the building and loan society—is a stimulus to saving and a perfectly safe depository in which his surplus earnings may be placed and used for mutual interests of his co-laborers and himself in home building.

The intellectual and social side of life among this intelligent and progressive group of workmen is represented by

an organization known as the "Gibbsboro Lyceum," the membership dues in which is only ten cents (\$.10) per month. Like the other associations, it is supported almost entirely by employes of the John Lucas Company. The objects of the lyceum are the intellectual improvement of its members and also to provide them with social amusements of an improving character. Lectures and entertainments are given frequently in a hall devoted to that purpose, to which all members are admitted free, and have also the privilege of bringing children under fifteen (15) years of age without charge.

The employes of this firm are devoted to the interests of their employers—perfectly contented—and have never yet had a disagreement of any kind with them.



## **The Ludlam Steel and Spring Co., Pompton, N. J.**

**Manufacturers of Crucible Cast Steel, and Railway Car Springs.  
Employs 120 Males.**

This company provides a reading-room at its works for which dues amounting to five cents (\$.05) per month are charged.

An annual subscription to the Paterson General Hospital is paid by the firm, for which employes who need treatment through accident or sickness are taken in free of cost. Athletic exercises are encouraged among the workmen, and a base-ball field has been provided for the younger ones among them for the past two years.

The works are situated in the country and employes have the inestimable natural advantage of abundance of fresh air, water to bathe and fish in, and forests and fields to hunt in. These, of course, are benefits derived from nature, with the production of which neither company or workmen have had anything to do, but they are, nevertheless, important factors in producing and maintaining a high standard of physical and moral excellence among the employes.

## Maddock Pottery Company, Trenton, N. J.

**Manufacturers of Fine China and Porcelain Ware.  
Employs 160 Males and 70 Females.**

This firm reports that a commodious lunch-room is provided at the works for the use of employes. There is also a sick benefit and burial fund association, organized and maintained by the employes. Membership is limited to actual employes of the company, no matter what their line of duties may be.

The purpose of the society is to provide weekly benefits for members who are unable to work through either sickness or accidental injury. To entitle a member to benefits it must be apparent that the disability from which he suffers was not brought on by his own misconduct.

The number of members at present in good standing in the society is one hundred and twenty-five (125). The dues for membership is fifty cents (\$0.50) per month, and the payments to sick or disabled members is five dollars (\$5) per week, which sum is allowed for thirteen (13) consecutive weeks.

In case of a member's death, the rules of the association provide that fifty dollars (\$50) shall be paid to his surviving relations toward defraying the expenses of his burial. The sick and burial funds were established in January, 1902, and are therefore now nearly two and a half years old. During that time the sum of four hundred dollars (\$400) has been paid out in sick benefits; as no deaths have thus far occurred among the membership, nothing has been paid out on account of burials. There are also shop committees, whose business it is to act on behalf of the employes in matters appertaining to their work.

## John Maddock & Sons, Trenton, N. J.

**Manufacturers of Steamship, Carbuilders' and Plumbers' Earthenware, and Sanitary Specialties of Every Description.  
Employs 125 Males and 20 Females.**

The employes of this firm have a sick and burial club, membership in which is limited to male employes who earn at least seven dollars (\$7) per week.

The dues charged are ten cents (\$.10) per week, and the amount paid to sick or disabled members is two dollars (\$2) for the first week and five dollars (\$5) per week thereafter up to and including the thirteenth week.

The amount paid to the family of a dead member is absolutely on the assessment plan, the rate being fifty cents (\$.50) for each member in good standing at the time the death occurred. During the year 1903 the sick and burial club paid out two hundred and thirty dollars (\$230) on account of sickness; there being no death, there was nothing disbursed on that account.

For the first two months in 1904 the payments on account of sickness and deaths were thirty-six dollars (\$36) and twenty-eight dollars (\$28) respectively.

About fifty (50) per cent. of the total number of employes are members of the association.

The firm has encouraged the workmen in every step taken in relation to the benefit society, and has helped financially when occasion required. The moral results of the organization are said by the firm to be very good; the management is entirely in the hands of the workmen themselves, and much interest in its affairs is displayed by every member.

Although in existence for only a comparatively short time, the society has done much good both in a material and moral sense, and the firm and workmen unite in expressing their confident belief that it will, in time, grow up to a higher plane of usefulness.

## Marine Engine and Machine Co., Harrison, N. J.

**Manufacturers of Marine Engines and General Machinery.  
Employs 243 Males.**

The employes of this company have a mutual benefit association which has been established for several years and is now on a very successful basis.

The constitution of the association limits membership to employes of the firm, but allows workmen who leave its employment to still retain their claims to all benefits by continuing to pay the weekly dues. Should they, however, allow themselves to fall into arrears for four weeks, all rights are forfeited and their names are stricken from the rolls.

Under the rules of the association a minimum amount of one hundred dollars (\$100) must be maintained in the treasury. The dues are fixed at five (5) cents per week, which may be increased to ten (10) cents if necessary, and maintained at that figure until the surplus funds on hand amount to one hundred dollars (\$100), after which the dues are again reduced to five cents. Should the amount in the treasury reach three hundred dollars (\$300), payments by members who have drawn no benefits are suspended until the fund has diminished to the minimum amount of one hundred dollars (\$100), when their contributions of five cents per week are resumed.

The association is managed by a board of twenty members, representing every department of the works; these are chosen annually, the members employed in each department choosing their own representative.

In case of accident or sickness not resulting from intemperance or immoral conduct, members of the association are paid five dollars (\$5) per week, and fifty (50) cents for each day less than one full week. Payment of sick benefits is limited to twenty-six (26) weeks in any one year, the first six of which are at the rate of five dollars (\$5) per week, and the succeeding twenty weeks at the rate of one-half that amount.

The funds of the association are provided and all its affairs managed by employees. The benefits and advantages which are thus brought within reach are highly appreciated by the workmen, a large majority of whom are members.



## **The Samuel L. Moore & Sons Co., Elizabeth, N. J.**

**Manufacturers of Steam Engines and General Machinery.  
Employs 295 Males.**

Benefit features in the works of this company are limited to an arrangement with the general hospital, under which employees injured in the actual performance of duty are received into that institution and treated without expense to themselves.

For this privilege each employee contributes ten (10) cents per month. The general hospital will treat any injured person who may apply for admission, but the workmen prefer paying this small monthly sum so as to assist the institution and also that if, through accident or sickness, they become inmates, they may not be regarded as charity patients.



## **The National Saw Company, Newark, N. J.**

**Manufacturers of All Kinds of Saws.  
Employs 100 Males.**

The employees of this firm have organized an insurance system which is substantially a benefit association. The total membership reported is one hundred and twenty-five (125), of which number about one-half are employed by the saw company; the others are divided among the other saw works of Newark.

The dues charged are fifty (50) cents, and ten dollars (\$10) per week is paid to members who, through accident or sickness, are unable to work. The sick benefit is paid for ten consecutive weeks.

The association also provides a burial fund of fifty dollars (\$50), which amount is paid on the death of a member to the person that has been designated by him to receive it.

The association has been in existence several years, and has thus far disbursed six thousand dollars (\$6,000) on account of sick benefits and eight hundred and fifty dollars (\$850) for burial of members.

The uttermost possible care is taken by the committee which manages the business of the association to confine the payment of benefits to meritorious cases, and to exclude such as may originate in dissipation or immorality on the part of members seeking relief.

The company contributes to the funds of the benefit association, but not in fixed amounts nor according to any regular plan. Its contributions are given whenever needed, which is, generally speaking, when the treasury is unable to meet claims against it. The company's contributions average about fifty dollars (\$50) a year.



## New York Switch and Crossing Co., Hoboken, N. J.

**Manufacturers of Special Track Work of All Descriptions.  
Employs 92 Males.**

The management of this company stands ready to pay expenses for any employe who will take a course in any of the well-known correspondence schools in which industrial science is taught. It also subscribes for a full line of industrial and mechanical publications relating to its line of business, which are distributed to all employes who desire to read them.

Liberal contributions are made by the firm to a local hospital, which is a charitable institution, so that employes in case of accident or sickness may have a place to go where they will receive proper medical treatment.

## J. & W. Nichols, Nutley, N. J.

**Manufacturers of Soft Fur Hats. .**  
**Employs 48 Males and 16 Females.**

This firm provides in its factory a large airy lunch-room and dressing-room for the men, and the same for the women.



## Novelty Wood Works, Newark, N. J.

**Makers of Fancy Carvings, Trade Marks, Monograms, Models, etc.**  
**Employs 36 Males.**

This firm declares itself warmly interested in the development of betterment institutions for the benefit of employes, and expresses a hope that it may soon be in a position to enlarge that which it has already done of that character for its own workmen.

This consists of an arrangement whereby employes are permitted to invest some part of their earnings each year in the business, on which they are paid dividends according to the profits made.

On the fifth floor of the factory a gymnasium has been fitted up, which has as parts of its outfit, punching bags, boxing gloves, shower baths, etc. This room is open to and used freely by all employes.

One young man in the service of the firm, who showed a remarkable inclination for study and a capacity for learning, is now taking a course in a business college, the bills for which are being met by the firm.



## Perth Amboy Dry Dock Co., Perth Amboy, N. J.

**Shipbuilders, Machinists, and Boiler Makers.**  
**Employs 190 Males.**

The employes of this company, with the co-operation of the firm have organized an Employes' Accident Benefit Association, which fills a want and is doing good work.



Any employe may become a member on filing his application at the office. The admission fee is fifty cents (\$0.50), upon payment of which a membership card is furnished.

The benefits are five dollars (\$5.00) per week, which is paid to any member who may be incapacitated for work, the payments to end after the sixth week. Physicians' and druggists' bills are paid up to an amount not exceeding twenty-five dollars (\$25.00). Money is paid only in cases of accident to members while at work for the company, and then only when a physician certifies that the injury has prevented the applicant for a longer time than a week from working.

Ten cents (\$0.10) per week is withheld from the pay of each member, which is enough to keep the benefit fund of the association at about one hundred dollars (\$100). No admission fee is required from an employe who may leave the company's employ for a time and return.

Employes who do not join the association are warned not to expect collections to be made for them when hurt.



H. S. Peters, Dover, N. J.

**Manufacturer of Overalls.  
Employs 10 Males and 50 Females.**

In response to the circular of inquiry on the subject of betterment institutions, the proprietor of this establishment states that at the present time there is a limited form of profit-sharing in operation in his works. Those admitted to participation in it are all employes who fill responsible positions, and the amount allotted to each is dependent on the importance of the position occupied by them in the business. The plan has not yet been worked out to include all employes because of dubiousness as to the wisdom of such a course. The ordinary employe who has no responsibility beyond doing his regular daily task is not in a position to make such an arrangement mutually advantageous, and therefore.

through lack of interest, such plans almost invariably become ineffective.

But the ordinary employes of this factory are not left without an incentive to conscientious work; a premium of five per cent. is paid on the weekly earnings of all engaged in the actual manufacture of goods, for turning out work which is neat and which does not require any alteration or mending.

A dining-room for the use of operatives, which was an established feature of the factory until recently, has had to be abandoned for that use and taken for manufacturing purposes because of the growth of business. The management expected at the time to soon begin the erection of a new factory building, for which plans were all ready, but the work has been delayed because of the uncertain condition of the cotton goods market.

It was expected when the plans and specifications were made that the factory would be erected and occupied by this time. Work on it will, however, soon be begun, and, when finished, it will be, in the matter of providing for the comfort of employes, the best equipped factory in the line of business followed by this firm.

The dimensions of the dining-room provided for in the plans are 25 x 31 feet. It will be operated on the same plan as that followed heretofore, viz.: The management will furnish the room, stove, fuel and all kitchen utensils, allowing the employes to run the dining-room to suit themselves. They select their own help, arrange for their own supplies of eatables, and pay all expenses except for fuel. In the past, the cost of dinners has been kept down to a surprisingly low figure, considering what was got for the money expended.

The social hall is planned to be 17 x 25 feet. Among the several appropriate features of its equipment will be tables with current reading-matter of interest. The locker-room and wash-room for the girls will be 23 x 25 feet; that for the men will be located in another part of the building. The baths for sanitary reasons are to be all shower baths.

and for the use of the men only; others for the girls will be installed in their department, if a desire on their part to have them should become apparent.

There are no sick or burial funds established in this factory, but the proprietor voluntarily assumes the care of such employes as may be disabled and unfit to work through accident or sickness.



## Potter Printing Press Company, Plainfield, N. J.

**Manufacturers of Printing Presses.**

**Employs 300 Males.**

The "welfare or betterment work" established in the plant of this corporation consists of first-class sanitary conditions, abundance of light and pure air throughout the works. The factory buildings were constructed strictly with these requirements as the principal ones in view. There is a branch of the Plainfield Public Library established in the works, from which employes are at liberty to draw books at will, subject only to the ordinary library rules.

There is also an association called the "Potter Press Works Mutual Aid Society," to which only employes and members of the firm and the managing officials are eligible.

The dues for membership are fixed at ten cents (\$0.10) per week, and the amount paid per week to members, who through accident or sickness are unable to work, is five dollars (\$5) per week, payments to commence the second week of disability and continue for twenty-five (25) consecutive weeks.

The Mutual Aid Society also provides a burial fund, which amounts to fifty dollars (\$50), and is paid to the legal heirs of deceased members, or to the persons whom they had on joining designated to receive it.

Members of the company contribute weekly dues and otherwise help to support the Mutual Aid Society in the same way as do the workmen. One hundred and eighty (180), or sixty (60) per cent., of the total number of employes are members of the Mutual Aid Society.

## J. L. Prescott & Company, Passaic, N. J.

**Manufacturers of Enameline and Blackene.  
Employs 95 Males and 90 Females.**

This firm, acting in conjunction with its employes, has established a fund which is intended to provide for the wants of employes who may be in needy circumstances through sickness, accident, or other cause.

The plan requires a contribution of ten cents (\$0.10) per week from each employe, and the payment by the firm of an amount equal to their aggregate contributions. The fund is administered by a committee of three, two members being chosen by the employes and the third by the firm. The distribution of the fund, that is to say, the benefits allowed to the individual, is entirely at the discretion of the committee, no specified weekly allowance being stipulated, but the amount paid is in proportion to the actual needs of the individual. Without at all detracting from the usefulness of the fund or causing employes to be disinclined to avail themselves of its benefits in case of necessity, there is yet a feeling among most of them that no claim against it should be made unless in case of actual need.

The plan, although radically different from that usually employed, is found to work very well, as it insures adequate relief in every case of genuine want. It is very much appreciated by the employes, at whose instance it was adopted after full consideration had been given to this peculiar feature and to other details.

As at present managed, the benefit fund is gradually accumulating in the hands of the committee, while at the same time no real need is allowed to exist among the operatives.

## **Raudnitz & Pollitz, Hoboken, N. J.**

**Manufacturers of Fancy Leather Goods.  
Employs 148 Males and 200 Females.**

The employes of this firm have a sick benefit association, membership in which is limited to men and women employed at the works. The object of the society is to relieve those of the membership who may be incapable of working through either sickness or accident.

At present the association has forty-five members (all males) and pays a weekly benefit of five dollars (\$5) for a period of twenty-six (26) consecutive weeks, after which payments are optional on the part of the society, but they are always continued in greater or less amounts, according to the necessities of the member as long as disability continues.

The dues per member are ten cents (\$.10) per week. Much good has thus far been done by the association in relieving distress resulting from sickness among its members.

The firm takes an interest in the beneficial society and helps its work along financially, although the management of its affairs is entirely in the hands of employes.

Strikes or other manifestations of dissatisfaction among the employes of this firm have been unknown up to the present time.



## **The Reeves Engine Company, Trenton, N. J.**

**Manufacturers of High-Class Compound, Simple, and Marine  
Engines.  
Employs 32 Males.**

This firm maintains its works in a condition of high order and efficiency, both with regard to effective and profitable operation and the comfort and welfare of its employes.

Conveniences for washing at the noon hour and at quitting time, which includes warm water, are provided in ample measure for employes. The plant is provided with a system

of heating and ventilating which keeps the buildings in a comfortable and healthful condition at all times. It is the fixed policy of the management to provide the very best conditions possible for its workmen to labor under, because, to quote the firm's own words, "We can get a better grade of men, who are able to do finer work and more of it, by following this course. Our motto is 'Big wages, healthy conditions to work under, and big production.'"

The premium system, which is a form of profit-sharing, is applied to all work done in the plant. The plan on which it is operated is very simple, and may be briefly described as follows: A certain time is determined as fair to be put on each operation in the production of the various parts that enter into the completed engine or machine; for instance, the turning of a crank-shaft. If the man gets it done in less time than is allowed, he is paid so much an hour for the time he actually worked on the job, and in addition is given his regular wage rate for half the time he has saved in its completion. In other words, a premium is put on his efforts, which enables him to very materially increase his earnings by intelligent and diligent work.

The Reeves Engine Company holds membership in an organization known as The Manufacturers and Employers Association of Trenton, N. J. The objects of the association, as set forth in its constitution, are "To uphold the principle of personal liberty, and to assist the duly constituted authorities to enforce the same." "To secure and preserve equitable conditions in the workshops of members, whereby the interests of both employer and employe shall be properly protected." "To investigate and adjust any question arising between members and their employes which may be referred to and come within the jurisdiction of the association."

The apparent purpose of the association is to combine all employers together, with a view to dealing with conditions in factories and workshops of the members that may cause discontent among operatives and lead to strikes. The power of the united body of employers is used to compel the cor-

rection of abuses of which the employes of any of its members may justly complain, and also to protect its members against such attacks on the part of employes as may follow a refusal to comply with unjust and unfair demands on their part.

The association is, in fact, a great arbitration body that hears complaints equally from the operatives employed by its members and from these members against their operatives, decides each case on equitable principles, and uses all its power to enforce on the employer or on the body of workmen involved, as the case may be, a strict and faithful submission to its decision.

The end sought to be accomplished is the preservation of peace between employer and employe, and the protection of industrial interest from the destructive and demoralizing consequences of strikes and lockouts, and the efforts of the association in this direction have thus far been attended with a very gratifying degree of success.

A very interesting and valuable feature of the Manufacturers Association is an employment department, or labor bureau, through which employers who need men and men who need employment are brought together.

The main purpose of the labor bureau is to make it easy for the employer to find men who want work, and for men, when they want work, to find an employer. A plain, simple proposition making it possible for men out of work to learn at one place which employers are in need of men, and, by leaving their applications, make it possible for employers to learn at the same place what men want work. It is understood that in all cases employers give first attention to men sent to them from the office of the bureau.

If an employe complains to the bureau of unjust or unfair treatment, his statement is investigated and, if found to be correct, the matter of which complaint is made will be corrected. The name of the employe is never divulged.

The bureau seeks in every possible way to show both employers and employes that their interests are identical and that the greatest good can be secured for both by uniting their efforts.

**Roessler & Haaslacher Chemical Company,  
Perth Amboy, N. J.**

**Manufacturers of Chemicals.**

**Employs 120 Males.**

This firm has established a bath-room for its employes, the use of which is open to them at any time. The frequent use of the bath is urged as a means of preventing injury to health from the materials handled in the processes of manufacture.

A lunch-room, spacious in size and kept in a condition of absolute cleanliness, in which are accommodations for passing the noon lunch hour in comfort, is also provided by the company.

In addition to these institutions, which constitute the company's contribution to the material well-being of its workmen, there is a sick-benefit association maintained by the latter with some assistance from their employers.

Practically all of the employes are members of the sick-benefit association, into which they pay dues at the rate of twenty-five (25) cents per month.

Members who are sick or disabled through accident are given six dollars (\$6) per week for a period of twenty-six (26) consecutive weeks, and four dollars (\$4) a week for a further time of twenty-six (26) weeks.

The society also pays a death benefit, which is raised by an assessment on the members, when a death occurs, of one dollar (\$1) per capita. On the present basis of membership, this will yield a burial fund of about one hundred and twenty dollars (\$120), which amount is usually increased by a very liberal donation from the firm.



## Sayre & Fisher Company, Sayreville, N. J.

**Manufacturers of Pressed Front Brick, Enameled Brick, etc.  
Employs 900 Males and 4 Females.**

Like other brick manufacturers, this company was in the habit of housing its unmarried men in boarding houses with rooms containing from sixty to eighty men. In 1897 the company decided to do something toward bettering their conditions, and erected a large cooking department equipped with every modern appliance necessary to cook by steam. Large dining and storage rooms were erected at the same time, and all these structures were lined with enameled brick and the floors laid in tiles, thus insuring the possibility of perfect cleanliness. In addition to these structures a new and very large dormitory was erected, containing fifty rooms arranged to accommodate eight beds to a room. Each man is given a key to his apartment in the dormitory. On the first floor of this building is a room arranged with all necessary convenience for washing. The walls are lined with enameled brick and floor with tile. A degree of cleanliness and personal comfort hitherto unknown in the lives of men who work at brick making has thus been provided for the employes of this company through the medium of these improvements, and there is every reason to believe that the employes appreciate the change and that the firm is well pleased with the results.



## Sherwin-Williams Company, Newark, N. J.

**Manufacturers of Paints and Varnish.  
Employs 59 Males.**

The Sherwin-Williams Company operate fourteen plants, ten of which are located in the United States, three in Canada and one in England.

The features of industrial betterment here described are, the company states, in operation in substantially the same form at all its plants, no matter where situated. The de-

scription of them that follows is drawn from the company's Cleveland works, which is the oldest plant under its control. The same features of betterment work are now either fully operative in other establishments owned by the company, or are in process of becoming so as rapidly as local circumstances permit their adoption. It will be understood, therefore, that only a part, but still the largest part of the splendid system of betterment work for the benefit of its employes which the Sherwin-Williams Company has instituted, is at the present time in operation in the Newark plant, where business was commenced nearly four years ago. The works are situated on the banks of the Passaic river, the site being as free from objections in the matter of environment as any that can be found in the manufacturing district of a great city.

The buildings are large modern structures of brick, in the construction of which every feature necessary to perfect sanitation and ventilation was incorporated.

#### **Cleanliness.**

In the company's own statement of its industrial betterment work, it is made apparent that order and cleanliness is regarded as the basis of all its various forms of co-operative work. In putting it first the ground is taken that the first requisite of good health is to take care of it in the proper place; that is to say, wherever it may be most subject to the danger of impairment.

In the works of the Sherwin-Williams Company, cleanliness extends not only to the floors and machinery of the workshops, but to the employes as well, and in order to insure its thorough observance, the factory is provided with a large number of lavatories, shower-baths and lockers, and a plentiful supply of clean towels is furnished from the company's own steam laundry.

Employes are encouraged in every way to use the shower-baths and to do so freely; but in the dry-color department, in order to guard against lead poisoning, the frequent use



NOON-HOUR RECREATION. SHERWIN-WILLIAMS CO.



of the baths is compulsory. As a further safeguard, each man is provided with an entire change of clothing every day. The results of this caution is most strikingly shown in the facts that where previously the average time a man cared to work in the dry-color department, or could do so with safety to his health, was about one month, he now stays as long as he wants to, or is wanted by the management. Where, in the past, at least every other man was affected by the lead, there is now not more than one in twenty injured by it, and then generally only in cases where the man does not make proper use of the system.

#### **Lunch-Rooms.**

Two floors in one of the factory buildings are used exclusively as lunch-rooms and kitchen. The factory workmen use one room, the girls, office force and foremen have the other. The same fare is served in both rooms. Either a soup or a stew and tea and coffee are served free every day, while the balance of the well-selected bill of fare is served at practically cost prices.

The employees bring their own lunches and are served with the free hot dishes, or they may order their entire meal—and get a good one—for an average of eight or ten cents.

Whenever night work is necessary during the busy season, special dinners are served in the rooms for all employees at the expense of the company.

#### **Benefit Society.**

As far back as 1887 the company organized a sick and death benefit society, to which all employees are eligible. It has always been in a flourishing condition, and the membership at the present time includes over ninety (90) per cent. of the working force. The funds necessary to start and sustain the sick and death benefit society were furnished by the company until, from the growth of membership, it came to be on a paying basis.

#### **Rest-Rooms.**

Rest rooms are provided for the girls, where they may lie down at noon or receive attention in case of illness. These rooms are not large, but are attractive and homelike, well furnished, and supplied with all the requisites for comfort.

#### **The Club Room.**

A large part of one floor of one building is set aside as a club-room. It is used for meetings of employes and as a place of rest and recreation. The club-room is furnished with a piano, game tables and reading tables, on which the latest magazines and other first-class periodicals are always to be found.

In the club-room is located a library supplied by the company, and also a branch of the public library, both well patronized by the employes.

#### **The "Chameleon."**

A monthly magazine is published, which is edited and printed in the company's own printing department. It is open to contributions from all employes and contains information, instruction, news and illustrations relating to the business. This publication is regarded as one of the most valuable features in the entire benefit system.

#### **Convention and Banquet.**

A convention of salesmen, officers and managers is held for one week each year for the purpose of discussing the company's goods, explaining the new advertising plans and methods, reviewing the work of the past year, and discussing all topics relating to the manufacture and sale of the paints and varnishes which constitute the product of the company's business.

The convention is, of course, primarily for business purposes, but a considerable element of pleasure is judiciously mixed in with its more serious discussions. Not the least



PING-PONG AT NOON. SHERWIN WILLIAMS CO.





interesting of the forms which this takes is the annual banquet of all the Cleveland employes, in which city the convention is always held because the parent factory is located there. Similar banquets are also given to the Newark employes and to those of all other branches of the company's manufacturing system. A good menu is served, toasts and informal talks are given by both officers and employes, who meet on these special occasions on terms of perfect equality.

#### **Annual Outing.**

Regularly once every twelve months for the past twenty-one years a day has been set apart for a general outing of all employes and their families.

Transportation is furnished by the company to some desirable summer resort—the place being chosen by vote of the employes—and a good old-fashioned basket picnic is held, with games and prize contests.

Similar outings are held each year at all branches. On these occasions, as at the annual banquets, all differences of factory rank are for the time being forgotten, and members of the firm, managers, superintendents, foremen and the ordinary employes, with their families, meet on terms of absolute equality, the attention of all being directed toward securing the greatest possible amount of pleasure from the holiday.

#### **Thanksgiving Turkeys.**

Thanksgiving Day has been observed for many years by presenting each employe with a basket containing a turkey and a quart of cranberries. In itself this may seem, perhaps, a small thing, but there is no doubt of its helping to commemorate the day in a way that the employes all appreciate. No deduction of pay is ever made on account of this or any other holiday.

#### **Watches at the End of Twenty-five Years' Service.**

One of the very best results of the betterment work carried on by the company is the desire of employes to remain

in its service—a point worthy of a much greater elaboration than space can be afforded for here. Among the employees are many in the rank and file who have more than twenty-five years' continuous and unbroken service to their credit, and others who will soon reach that mark.

The company has made it a custom to present everyone who has been with it in any capacity for that length of time with a gold watch and chain. This is not given as a reward for faithful service, but rather as a badge of honor.

#### **Suggestions Encouraged.**

The company has a system by which it solicits criticism of things appertaining to business and suggestions for improvement. Employees of all classes are free to avail themselves of this privilege to express their opinions freely. A record is kept of all suggestions received, and at the end of the year rewards are distributed to those who have made the most useful ones.

#### **"Do It Now" Signs.**

The expressive and suggestive phrase, "do it now," which the company has adopted as its motto, is hung under each clock in the entire plant. It serves to remind the employees that there is no time like the present, and that it is always unwise to defer action in the case of anything that ought to be done.

#### **Pure Drinking Water.**

All water used for drinking purposes throughout the factory is filtered. A special plant for this purpose was built some time ago, and the wisdom of the step was soon made apparent in many ways. The foregoing is necessarily but an outline of the admirable system of factory administration through which the company has done so much toward brightening the lives of its employees and elevating their labor to the plane of dignity on which it naturally belongs.

WOMEN'S REST ROOM AND SHOWER BATH. SHERWIN-WILLIAMS CO.





MEN'S LOCKERS AND WASH-ROOM. SHERWIN-WILLIAMS CO.







DINING-ROOM. SHERWIN-WILLIAMS CO.







BILL OF FARE. SHERWIN WILLIAMS CO.





ROUND THE READING TABLE. SHERWIN WILLIAMS CO.





CORNER OF LIBRARY. SHERWIN-WILLIAMS CO.





WOMEN'S REST-ROOM. SHERWIN-WILLIAMS CO.







LIGHTENING THE DAY'S WORK. SHERWIN-WILLIAMS CO.



That the plan has now been in successful operation for upwards of twenty years is the best possible proof of its having met with an appreciative and loyal support from the employes, for whose benefit and betterment it was originally adopted. The sentiments of the company regarding the results produced, and the lofty view which it takes of the responsibility devolving upon employers, cannot be better set forth than by quoting the two concluding paragraphs of a letter of theirs on the subject addressed to the bureau and which accompanied the statement from which the facts in the foregoing article were drawn. These are the paragraphs, and it is questionable whether more true kindness of spirit, together with broad, practical but thoroughly humane business sense, could be infused into the same number of words:

"The care and improvement of the animate machinery is at least as important to the manufacturer as the care and improvement of the inanimate machinery.

"The three most important matters for attention should be health, morals, and education; because a vigorous employe can do more work, a conscientious employe will do more conscientious work, and a more intelligent employe will do more intelligent work."



**J. Findley Smith & Son, Belleville, N. J.**

**Manufacturers of Brushes.**

**Employs 60 Males and 15 Females.**

This firm gives a present of a valuable kind twice a year to the best operative in each line of work carried on in its factory.

## **Spratts Patent (America), Limited, Newark, N. J.**

**Manufacturers of Dog Foods and Medicines.  
Employs 50 Males.**

This company has a system of profit-sharing which was put in operation at the beginning of 1903. Under the plan, a percentage of the profits over and above a certain fixed sum is set aside for division among the principal employes at the end of the fiscal year, the number of beneficiaries and the amount of the allotment being at the discretion of the general manager.

At the close of 1903, on the occasion of the first year the plan was in operation, twelve employes participated in the division of profits, the dividends amounting to sums that varied from three (3) to seven (7) per cent. of their annual wages.

There is a probability of the number of participants and the amount of the allotment being increased from year to year, as the policy involved seems to have been permanently adopted by the company.



## **Standard Bleachery Company, Carleton Hill, N. J.**

**Bleachers, Dyers and Finishers of Fine Cotton Goods.  
Employs 555 Males and 164 Females.**

The company supports hospital beds and contributes liberally to the support of libraries in surrounding towns for the benefit of its employes, who appear to be satisfied and to appreciate the advantages thus provided for them.



## **Staten Island Clay Company, Woodbridge, N. J.**

**Manufacturers of Fire Brick of All Kinds.  
Employs 262 Males.**

This company has no definite or organized benefit plans in operation as yet, but is now trying to arrange the details of something in the nature of a relief system for the special well-being of its employes.

This is found to be just now rather difficult, from the fact that a very large majority of the employees are foreigners of the non-English speaking races, who have as yet a very limited mental development. At present, measures are in operation which insures care being taken of all sick or injured employees. In the case of worthy and faithful workmen who are sick, half or even full time is allowed during sickness or disability until such time as they are able to pursue their regular work. The company is now considering the details of a plan through which with a small assessment upon each workman on pay day, supplemented by contributions from the company, sick and death benefits may be provided for all employees through a regular system.



## **Tide-Water Oil Company, Bayonne, N. J.**

**Producers of Illuminating Oil, Naphtha, and other By-products of Petroleum.**

**Employs 850 Males.**

This corporation owns and manages an immense oil refining industry which is located on the water front of Bayonne city. The work is to a large extent of a laborious character, involving considerable liability to accident. The company is, therefore, a very large contributor to the support of the local city hospital. When a workman is injured in the discharge of his duty, the doctor's bills and all other expenses are paid by the company, and half pay is allowed until recovery.

The fixed policy of the company is to promote men from the ranks to the position of foremen and to other posts requiring skill. In making selections to fill places of this kind that become vacant, men who are known to have the drinking habit are not considered eligible. A premium is thus placed on temperance, industry and skill, which has a very happy influence on the conduct of the men. Sobriety is the rule among them, and a large number are regular depositors in savings banks and building loan societies.

One hundred and two (102) workmen, or twelve per cent. of the total number employed, own their homes, and have paid for them out of the savings from their wages.

What is known as a "lunch club" is run in connection with the works. The company furnishes room, utensils, fuel, cook and waiters. The members of the club pay for provisions, wear and tear of linen, etc. The club membership is open to all employes; up to the present time fifty (50) men have availed themselves of the privileges offered.



## The Ulster Iron Works, Dover, N. J.

**Manufacturers of Steam Boilers.**

**Employs 67 Males.**

The employes of this company have voluntarily organized a benefit association of which all employes are members. The object of the society is to furnish a weekly benefit to those of the members who may be sick, and therefore unable to support themselves or their families. All employes of good moral character are eligible to membership, unless at the time of entering the company's employment they should be in conspicuously ill health. In that case they are not admitted.

The entrance fee is one dollar, and the monthly dues are fifty cents. The sick benefit is five dollars (\$5.00) per week, payment of which does not begin until two weeks after the commencement of the attack of sickness. No benefits are paid if the sickness is the result of intemperance or of immoral conduct. Full benefit is paid for six months if the disability continues that long, after that time the sick benefit is reduced to two and one-half dollars (\$2.50) per week.

## The Valentine & Bentley Silk Co., Newton, N. J.

**Manufacturers of Broad Silk Goods.**  
**Employs 136 Males and 144 Females.**

This company established a system of profit-sharing with employes on January 1st, 1902, the heads of departments only being admitted. A year later, on January 1st, 1903, the privilege was given to all employes, to purchase on easy terms, the company's gold bonds, bearing interest at the rate of five per cent. per annum; in addition to the five per cent. interest, a bonus is given to the holders of these bonds from a fund set apart for that purpose from the profits; this is placed to their accounts, and at the end of five years handed to them in cash.



## Victor Talking Machine Company, Camden, N. J.

**Manufacturers of Phonographs.**  
**Employs 500 Males and 100 Females.**

The workmen of this company have a sick-benefit association organized by themselves and managed entirely by officers of their own selection. In the matter of organizing and other steps necessary to put the society in working condition, the company extended all assistance, financial and otherwise, that was required. The society is known officially as the Victor Employes Relief Association, and its membership (April, 1904) numbered one hundred and eighty-five (185). The dues are thirty-five (35) cents monthly, and a sick benefit of five dollars (\$5) per week is paid for thirteen (13) weeks. A burial fund is a feature of the society, from which the sum of seventy-five dollars (\$75) is paid on the death of a member, and fifty dollars (\$50) on the death of a member's wife.

The sick-benefit association was organized on February 21st, 1903, and is therefore by this time (April, 1904) but little more than thirteen months old, yet during the com-

paratively brief time it has been in existence sick benefits to the aggregate amount of two hundred and fifty dollars (\$250) have been paid out, and also one death benefit of fifty dollars (\$50) on account of the decease of a member's wife. The total disbursement of the benefit society for carrying out the purposes of its organization is, therefore, three hundred dollars (\$300), or an average amount of one dollar and sixty-two cents (\$1.62) per member, for the thirteen months of the relief organization's existence.



### **Volger Manufacturing Company, Passaic, N. J.**

**Manufacturers of Ink Cans and Inking Pads.  
Employs 15 Males.**

In cases of idleness caused by accident or sickness, this company makes no deduction of wages, if the sick or injured person has been five years or over in its employment. In all other cases, one-half the regular wages is allowed. Married men are required to carry \$1,000 of life insurance, the company paying in full the first year's premium, and assisting such as may find after-payments a hardship on account of any unusual drain on their earnings.

The company seeks by all possible means to maintain cordial relations with its employes, and endeavors to convince them that their welfare depends on their own individual efforts.



### **Weston Electrical Instrument Company, Waverly Park, N. J.**

**Manufacturers of Standard High-Grade Instruments for Measuring Electricity.  
Employs 270 Males and 70 Females.**

The Weston Electrical Instrument Company kindly responded to the bureau's request for information relating to the admirable social and industrial features of its factory



administration, by furnishing the interesting paper on the subject, the full contents of which is reproduced in the following pages.

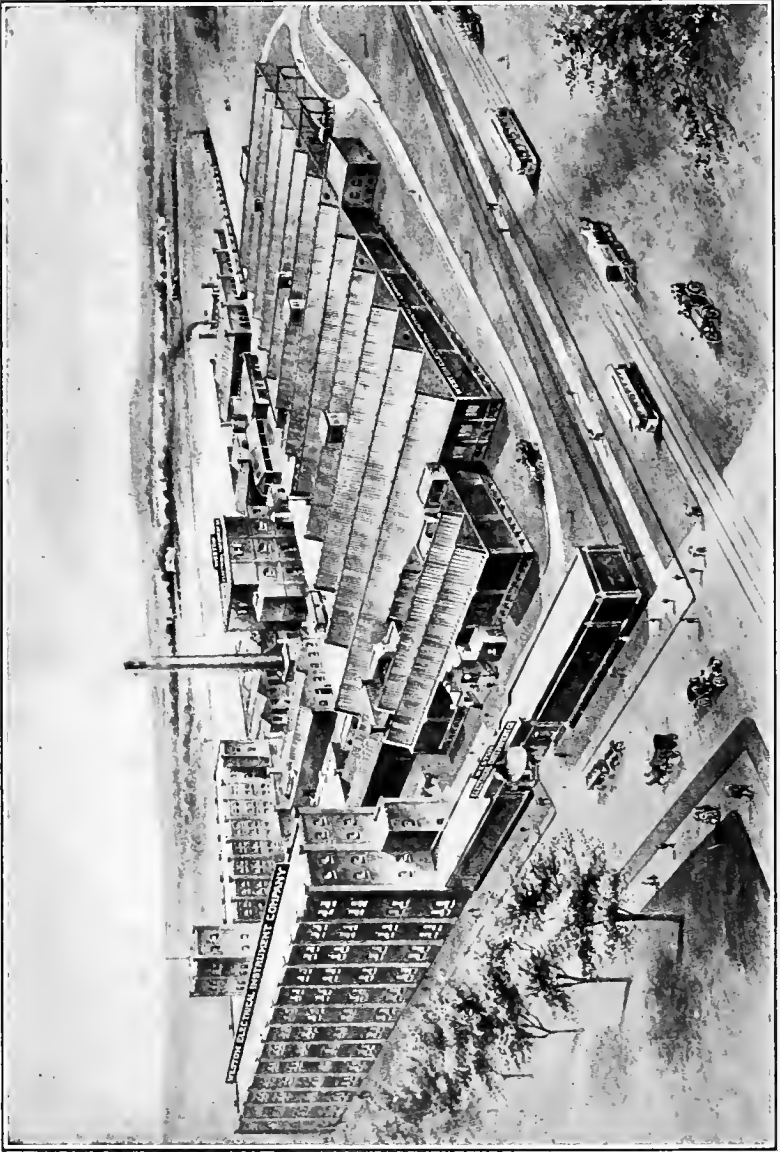
This narrative, which pictures in modest terms a combination of measures, all designed by the company for the protection of its employes and for their material and moral advancement, takes a place in the front rank of the triumphs thus far achieved by progressive and enlightened modern management of industry.

The story is full of interest from beginning to end, and is pre-eminently worthy of the greatest possible prominence because of its value as an object lesson to all who are interested in industrial organization.









WORKS OF THE WESTON ELECTRICAL INSTRUMENT COMPANY, OF NEWARK, N. J.

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SOCIAL ECONOMICS  
OF THE  
Weston Electrical Instrument Co.  
OF NEWARK, NEW JERSEY

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Prepared at the Request of the Bureau of Statistics of  
Labor and Industries of the State of  
New Jersey

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## Social Economics of the Weston Electrical Instrument Company of Newark, New Jersey.

In endeavoring to place on paper some of the interesting social features connected with the organization and administration of the Weston Electrical Instrument Company, these are found to be so interwoven with the industrial features that one is frequently puzzled where to draw the dividing line. In the large sense socially, the sanitation, the safety appliances, the length of work day, and the plans for mutual benefit seem to include themselves as naturally as the cuisine or the library or entertainments or sports, and are, perhaps, more important. Hence, in the following sketch, the broader lines have been chosen.

### Underlying Principles.

A treble purpose prompted the Weston Company in planning for the safety, the comfort, the health, the recreation, the prosperity of its employes. It might with truth be claimed that the altruistic idea was uppermost, but the company prefers to emphasize the material side of the question. All other things (such as wages, hours, etc.) being equal, the company was convinced that, if it could add thereto a sentiment, wrought into practice, of care for the welfare of the men and women in its employ, it would tend to attract and retain a superior class, who would become more than ordinarily interested in their work and would, also, promote pleasant relations between employer and employed; and that, therefore, such, commonly called altruistic adjuncts would become financially profitable. There was a third underlying principle, more essential, possibly, to the success of the purely social features of the establishment than any other, and this was the determination of the company to exercise no paternal or patronizing control, but to create a club-plant fully equipped in every particular, and turn it over to the employes, on whom should devolve the entire responsibility of organization and administration—of success or failure.

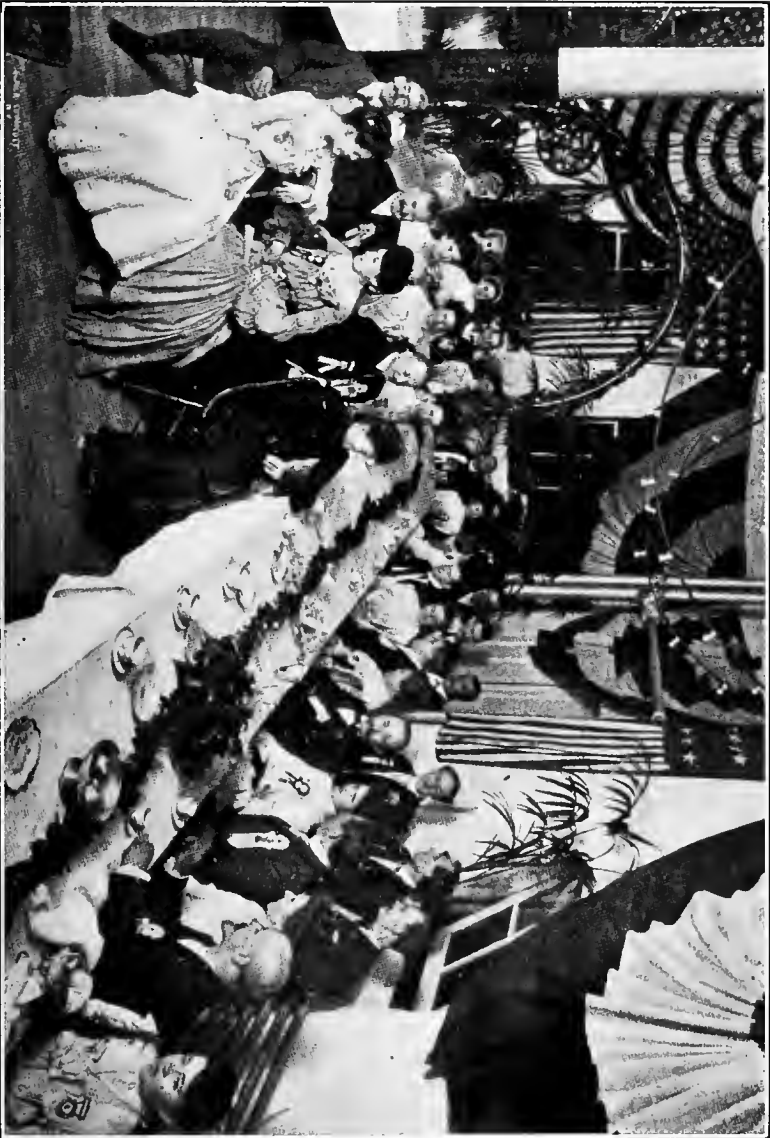
### **Capital and Labor.**

The basic idea of this social experiment, however, was the conviction of the head of the concern that the weightiest question confronting the twentieth century is the relation between capital and labor; that there must be a drawing together, or a still further pulling apart; that harmonious relations, community of interest, must be established; otherwise there must come between employer and employe a conflict more potential of disaster and destruction than any war this world has yet witnessed, and that, therefore, it is the duty of every employer to contribute by all reasonable means to a peaceful and satisfactory solution of the existing differences. It was hoped that the social and other plans of the Weston organization designed for the pleasure and welfare of its employes would not only shed a little sunshine day by day, but would yield their "mite" of illumination on this momentous problem, and indicate other steps along the same road.

### **Investigation by Experts.**

Pursuant to this policy the company, before planning its new works, employed two mechanical and engineering experts to visit the most notable manufacturing establishments in the United States, studying problems of construction, machinery and other physical conditions. Another expert traveled through the country for a year to learn what American employers were doing for their employes outside the mere question of wages, and when the present plant was erected the company reserved the most desirable portions of the premises, several commodious halls, furnished them as recreation-room, library, kitchen, dining-room, gymnasium, natatorium, bicycle depot, hospital, etc., and, at an inauguration reception, held on the evening of May 22d, 1903, the entire club outfit, with a working capital of \$1,000 contributed by a director, was formally transferred to the employes, who, electing their own Committee on Plan and Scope, soon completed the formation and incorporation of the "Weston Employes' Club of Newark, New Jersey."





CLUB INAUGURATION RECEPTION COMMITTEE. WESTON ELECTRICAL INSTRUMENT CO.



### Opening of Clubrooms.

Extracts from the Newark papers of May 23d will give the best idea of the opening ceremonies:

"Expression of the cordial relations that exist between the Weston Electrical Instrument Company and its employes was much in evidence at the concern's plant at Wee-quah-hic Park last night. The occasion was an inauguration reception tendered to the Weston Employes' Club by the Company to mark the formal opening of the new clubrooms at the factory.

"In an address by Professor Edward Weston, President of the concern and founder of the business, the use of the rooms and other conveniences for the workers was turned over to a committee of employes. In his address Mr. Weston mentioned that industrial conditions in this country are beginning to show a closer contact between employe and manufacturer, and that this should be encouraged. Very often, the speaker said, the employer and the employe are at odds because no effort is made by either to understand the other. The speaker then explained that, in his opinion, it is not wise, however, for the employer to go outside of his business to take up matters belonging to the worker. This fact, he went on, led to the inception of a plan whereby the administration of the affairs of the Weston Club would be entirely in the hands of the members—the firm retaining only its building rights.

"Appreciation of Mr. Weston's interest in those who are employed by him was shown in the presentation on their behalf of a silver loving-cup. In accepting the gift Mr. Weston assured his hearers that coöperation was the secret of the highest industrial success, and that much of the prosperity attained in building up his business was due to coöperation. The gift, he concluded, was an assurance that his employes were interested in the firm's welfare.

"Nearly one thousand persons attended the reception. The greater part of the attendance was made up of the men and women employed in this model establishment and the friends and relatives they invited, but there was also a number of public officials, city and State.

"The formalities were followed by music, recitation and singing, rendered entirely by shop talent of unusually fine quality supplemented by an orchestra.

"Some idea of the vast size of the dining hall, handsomely decorated with bunting, flags, flowers, etc., may be had from the fact that nearly eight hundred guests were seated at once for supper.

"A large number remained for the dance, which did not break up till the wee sma' hours; the Company having designated the next day as a holiday."

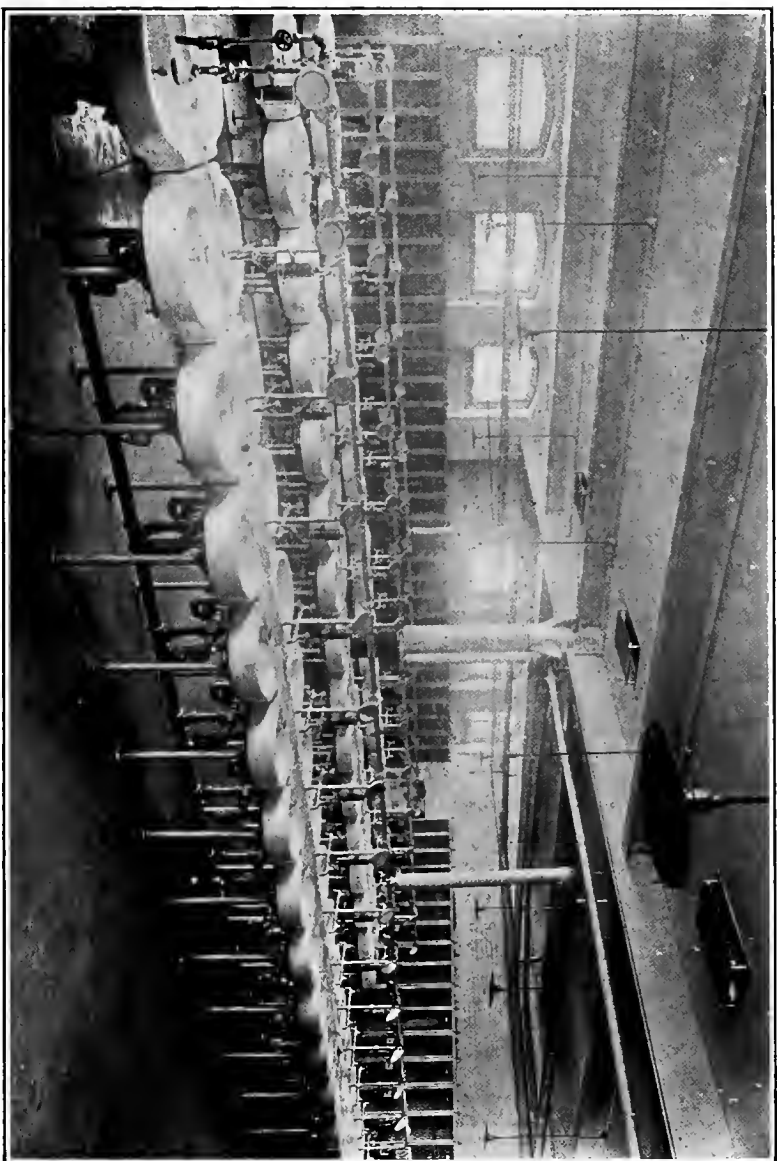
### Constitution and By-Laws.

The club is conducted in all respects along precisely the same lines as any and every well-ordered social club.

The following extracts from the constitution and by-laws, drafted by the employes without suggestion from the company, indicate that the philosophy animating the corporation was equally the sentiment inspiring the club. The object of the club is stated to be "to promote the social, moral, intellectual and physical welfare of the employes of the Weston Electrical Instrument Company, and to cultivate harmonious relations between them and the company." Any employe is eligible to active membership during the term of his or her employment, and any person who leaves "honorably" after being in the employ of the company for five or more years may continue a member, but without a vote or eligibility for elective office; any stockholder of record may become an honorary member under the same conditions and entitled to the same privileges as active members, except that he may not vote or hold elective office; when he ceases to be a stockholder, he ceases to be a member.

The initiation fee is twenty-five cents, and the monthly dues twenty-five cents, payable monthly in advance.

The officers are a president, vice-president, secretary and treasurer, who, with seven associates, constitute the board of governors. Of this board three are women, and of the eight men four must be heads of departments, and four general employes; not more than two governors shall be from the same department; male officers must be at least twenty-one and female officers at least eighteen years of age. The governors are divided into three classes, elected for terms of three years. Ex-presidents are advisory-governors without a vote. The officers are elected by the governors from their own number. "The Board of Governors shall exercise control over all the property of the Club \* \* \* shall have sole charge of the management of the club in the intervals between regular meetings in all matters of actual necessity not otherwise provided for \* \* \* shall create and appoint such committees as they may deem wise, the Chairman of which shall be a member of the Board of Governors \* \* \* they shall have power to determine the jurisdiction, duties and powers of the various com-



THE LAVATORY (INDIVIDUAL WASH-BASINS). WESTON ELECTRICAL INSTRUMENT CO.



mittees \* \* \* shall enforce the preservation of order and obedience to the By-Laws, and make such rules and regulations for the comfort and success of the club as they shall deem proper \* \* \* shall elect and suspend members by ballot \* \* \* shall not spend more than fifty dollars a month for new appliances without referring the same to the club."

Voting is secret, by printed ballot. The treasurer is required to give a bond.

The secretary and the treasurer "shall receive such salary as shall be fixed by the Board of Governors." Last year (1903-04) each was paid twenty-five dollars; for this year their compensation is fixed at thirty-six dollars.

An interesting duty imposed on the secretary is that "He shall keep a copy of every obtainable printed reference to the club in a scrap-book furnished for that purpose."

Regular nominations are made by a nominating committee of five active members appointed by the board of governors, of whom not more than two may be governors. Independent nominations are made on the written notification of any five or more active members.

There are five standing committees, all appointed by the board of governors: finance, house, entertainment, games and library. The house committee "shall have charge of the club house and all furniture and attendants therein," shall enforce the rules, order supplies and make repairs. This committee of nine is appointed for terms of three months in such manner that only one-third shall retire at one time.

Members have the privilege of entertaining two guests a week.

#### **Location.**

The Weston plant is situated in the Waverly district of Newark, at the extreme southwestern corner of the city, on healthful grounds separated from beautiful Wee-quah-hic Park by the broad tree-lined Elizabeth boulevard. Facing the works is a wooded triangle of considerable extent, the property of the company, which is a favorite summer resting

place for the employes; while along the west side and back of the buildings is a handsome lawn of several acres. The remainder of the property is rented for farms, but the question of cultivating it by, and for the benefit of, the club is under consideration, and here it is proposed to set aside grounds for out-door games. At present the municipal park, just across the avenue, is available for that purpose.

The buildings are of plain, unornamented brick. The main impression produced on the visitor approaching the works is that of spaciousness, airiness and neatness.

#### **The Interior.**

Let us enter with the men. Connecting with the dressing-room is the lavatory (75 by 40, with a ceiling 16 feet high) lighted and ventilated by many windows, and with an individual porcelain wash-basin, individual soap, individual mirror and individual locker for each man. The plumbing and all appurtenances of this department are of the highest quality and best style, at least twice as much money having been spent on it as would ordinarily be deemed necessary; the prevailing idea being to create perfect sanitary conditions. It is quite safe to say that twenty years ago no hotel in America was equipped with a lavatory so commodious, so cheerful and so complete.

The toilets are in every respect of equal grade with the lavatories—marble stalls, tiled floors and walls, and hardwood doors and seats; in all particulars of as high quality as are to be found in any hotel in the land. The closets are ample in number, and so distributed as to be convenient of access from any part of the works; connected with each group is a lavatory. In answer to the frequent question, "Do the employes appreciate such care for their comfort and health?" it may be stated that there has not been a single instance of mutilation or defacing in any part of the establishment—not even a trace of the almost universal practice of scribbling and drawing on the walls of closets. When the works were being planned some of the directors doubted the wisdom of so expensive a toilet system. They





AUTOMATIC JET DRINKING FOUNTAIN, WESTON ELECTRICAL INSTRUMENT CO.



feared the motive might not be appreciated or the property respected, and cited the fact that the toilets in the old works had met the customary fate. Mr. Weston replied that in the old establishment there had been nothing to appeal to the men—nothing to appeal to their personal self-respect or to respect for the property, and that he believed the proposed new departure would be received with favor by the employees. "Anyway," said he, "I am going to investigate this question myself," and he did. He went into all sections of New York City, from Carnegie Hill to the slums, and his report was that wherever he found superior toilet accommodations he found them respected—they were not whittled or scribbled upon. Consequently the Weston Company proceeded along the lines recommended, and the result is entirely satisfactory to everyone concerned.

All lavatory and toilet arrangements are duplicated for the women, who constitute a third of the force.

#### **Main Factory.**

Up a short stairway and we enter the main factory, where one is almost startled by the flood of perfect north light that illuminates every part of the great room (250 by 200 feet, with an 18-foot ceiling)—not a shadow or a dark corner to be found. To increase the effect of light and cheerfulness, the columns, machinery, shafting, railings, etc., everywhere possible, are painted in aluminum.

One's attention is challenged also by the immaculate cleanliness that prevails, and here it may be stated that the fine work done by the Weston Company demands an atmosphere not only free from dirt and grit, but as near dust-proof as the ingenuity of man can attain. It is interesting to note how frequently the health of employees and the requirements of business are best served by identical conditions.

#### **Unique Construction.**

The most unique feature of the main factory is that it is of the weave-shed, saw-tooth type of construction long used in textile factories, but of which there are in America

perhaps not more than two examples of its adaptation to machine shops. The Weston Company, however, has greatly elaborated and improved this style<sup>1</sup> of building. There are fourteen of these sheds, or teeth, or "bays," as the Weston people call them, each 200 feet by 20, and 18 feet high, the north or glass face of the tooth being sloped at an angle of 72 degrees (that being in this latitude the maximum angle of the sun's elevation), with the result that no sun can come into the room until very late in the afternoon, when it has lost most of its power. It is this arrangement, never clouded by snow or frost, that affords the wonderful light and permits double work-benches with the operatives facing each other; and which, combined with an ingenious method of shafting and machinery, it is estimated, effects such economy of space that one square foot of the Weston floor is equal to two and one-half feet in the ordinary scheme of factory building.

The chief objection to the saw-tooth form of construction for machine shops was that hitherto it had seemed impossible to drain the roofs without introducing more or less moisture into the works from drip and condensation. The ordinary method of disposing of the drip from the roof-drainage gutters had been to run under the gutter a steam-pipe which caught and evaporated the drip. In textile factories or heavy machine shops this does no harm—in fact, in some manufactures it is advantages—but moisture would be fatal in an establishment working metals to the exquisitely fine degree to which it is carried in the Weston works. To overcome this apparently insuperable difficulty, Mr. Weston devised a double-gutter system draining every sixteen feet through the main supporting columns. In practice it has worked perfectly. Not only is there no suggestion of moisture from the roofs, but the heat rising from the rooms below keeps both the gutters and the saw-tooth windows free of ice and snow, no matter how cold the weather or how heavy the snow-fall. The same gutters drain the condensation from the inner face of the roof windows.



THE DINING-HALL. WESTON ELECTRICAL INSTRUMENT CO.



### **Arrangement of Machinery.**

The machinery in each bay is run by an independent motor located in its center on a platform near the ceiling, and for each department there is an independent switch-board controlling the power and light, which are on different circuits. This permits the computation of the power necessary to operate any department or any machine. By a novel plan of auxiliary shafting, main belting is done away with; *i. e.*, the only beltings are the vertical connections between each machine and its department shaft. This minimum use of belts conduces to the safety of employes, and to light and cleanliness as well.

High-backed stools are provided for the women at work, and where one woman supervises several pieces of machinery a gentle push slides the stool back and forth along the floor on a miniature railroad, saving a lot of steps and strength. Where intense, concentrated light is necessary, as in handling some of the microscopically minute parts of the instruments, the operator is provided with a conveniently adjustable and properly shaded incandescent lamp.

### **Sanitation.**

In designing the plant, aside from the general adaptation of the buildings to their specific work, the prime purposes of the company were to create an attractive environment, and the best possible sanitary conditions.

### **Drinking Water.**

Drinking water of excellent quality and temperature is supplied by the company's artesian well, and is distributed throughout the departments by automatic jet fountains, thus doing away with cups or glasses.

### **Ventilation.**

The air space allowed each employe is about seven times that required by the most progressive modern hospital practice; or to state this fact in a different form, it is esti-

mated that if the work-rooms were to be sealed hermetically the employes could exist without injurious effects seven times as long as under the atmospheric conditions prescribed by the most eminent hospital authorities. These ratios are based on the work-rooms being manned to their fullest capacity.

Ventilation is secured by sliding shutters in the roof of each bay, by a series of towers which may be opened in full, or in part, or closed, and by a large power-blower.

By referring to the illustration showing the entire works, it will be observed that the buildings are either detached or semi-detached—the dividing lanes and alleys insuring a constant circulation of air.

#### **Drainage.**

No drain-pipes come into any of the main buildings or workrooms. All closets and lavatories are in wings independently ventilated, and so divided from the main buildings that gases and odors are excluded.

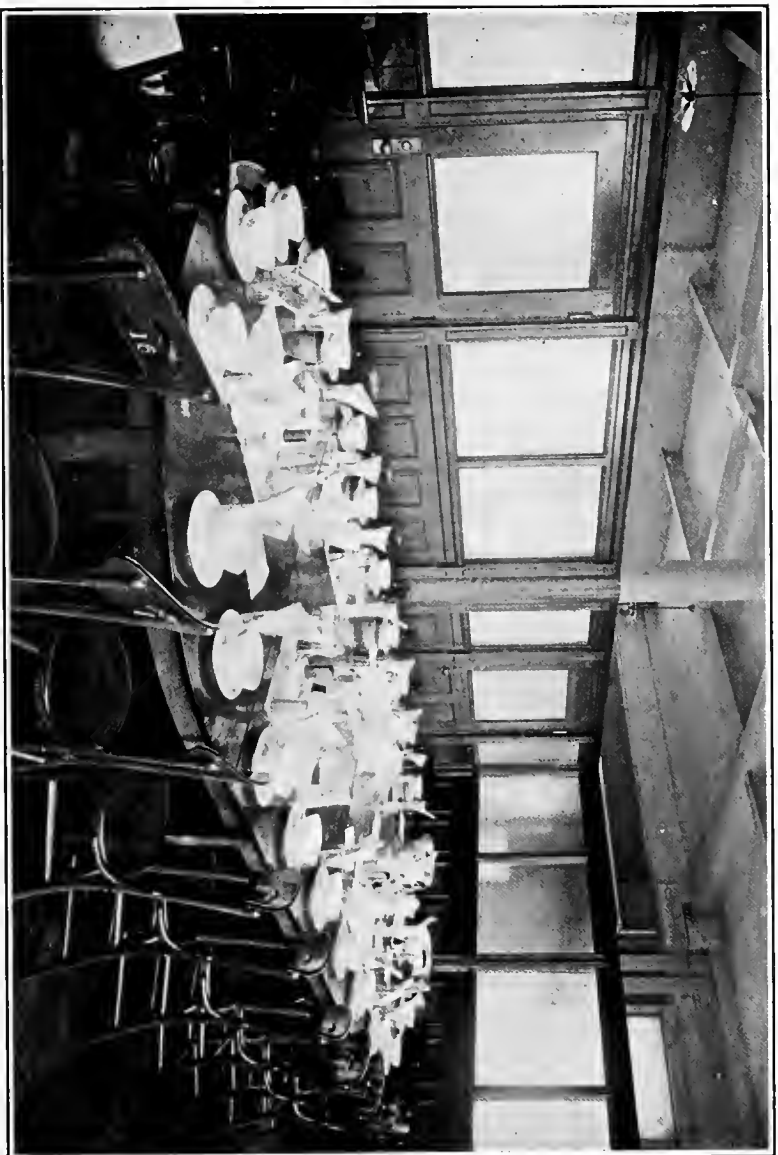
Three distinct systems of drainage are employed: (1) The roof-drainage, before noted, which is carried through the main columns to independent pipes; (2) the wash-water (lavatory) drainage, which is also a separate system joining the roof-drainage about a quarter of a mile from the works, and (3) the toilet-drainage, which nowhere connects with the others, but discharges on the level some hundreds of yards away from the factory—the constituents being absorbed by nature.

#### **Heating System.**

The works are equipped with a steam heating plant embracing a number of original ideas and controlled by centrifugal pumps, designed to permit easy and certain government of temperature. Automatic recording thermometers are placed in various parts of the factory, and the engineers are directed to maintain in the colder months a temperature of 70 to 72 degrees.

The Weston heating system, however, is still in the experimental stage, having passed the test of but one winter, and is not yet entirely satisfactory; but it is believed that





LUNCH ROOM FOR HEADS OF DEPARTMENTS—THE "CABINET." WESTON ELECTRICAL INSTRUMENT CO.



the soundness of the principle has been demonstrated and that ere another cold season arrives the difficulties will be removed.

The economic value of sufficient heat in winter is considerable, and is interesting entirely aside from the question of comfort. A few degrees lower temperature make little difference where people are engaged in heavy work—the exercise quickly develops sufficient warmth—but in handling the infinitesimal pieces which constitute so large a part of the Weston operations, a chilly atmosphere reduces speed and accuracy in a noticeable degree; so here is another point at which the comfort of the employe and the interest of the employer coincide.

To exclude heat in summer and retain it in winter, the double roof is packed with mineral wool.

#### **Resulting Conditions.**

Sanitary principles carried out so thoroughly have resulted in work-rooms not only flooded with light, perfectly ventilated and notably clean, but in every respect untainted; so it is probably safe to say that in no shops in the world do men and women work under conditions more healthful or more cheerful.

#### **General Plan of Buildings.**

The Weston establishment, as will be seen by referring to the frontispiece, consists (first) of two four-story wings at a right angle; (second) projecting to the west are low buildings containing the porter's lodge, bicycle depot, etc.; (third) projecting to the south are other buildings devoted to engine and boiler-rooms, electric power plant, automobile house, wood-working, japanning and plating departments, forges, storehouses, etc., the whole enclosing (fourth) on the south and west the shops. The plant now built covers about seven acres, but the property comprises some twenty-seven acres, affording ample space for extension.

#### **Tunnel System.**

All the buildings are connected by a system of tunnels radiating from the power-house. They have cement floors, brick and cement walls, with roofs of flagging laid in cement, the whole waterproofed with asphalt. These tunnels, which are large enough for a man to walk in comfortably, carry the electric wires and the pipes for hot and cold water, gas, etc. None of the drainage, however, passes through them.

#### **Club Rooms.**

The whole of the first and second floors of the north wing, and the second floor of the east wing are devoted to the club. In the second story of the north wing, superbly lighted and ventilated on both sides, in a room one hundred and seventy-five feet long by thirty-five feet wide and sixteen feet high, are located the two chief features of every well-ordered club—the culinary and administrative departments, the kitchen being in an extension on the south. This hall embraces (first) the main dining-room; (second) two cabinets, enclosed about half way to the ceiling, (a) a lunch-room for the executive staff (the heads of departments), and (b) a directors' lunch-room; (third) a "cosy corner," and (fourth), the great size of the room permitting it, the library.

#### **Dining Hall.**

In the dining-hall, as in every department of the establishment, the visitor's attention is promptly arrested by the spaciousness, light and cheerfulness; but a new feature attracts the eye, for in every one of the sixteen south windows is a box of flowering plants, vigorous and flourishing, which give the place a particularly homelike and refined character.

The hall is handsomely furnished; the color scheme is pleasing—white walls, buff shades, furniture of a cherry effect, and many pictures. The crockery is a good quality of porcelain, tastefully decorated and bearing the company's monogram, as does the silver and cutlery. Paper napkins are provided. When the room is set for luncheon its ap-



DIRECTORS' LUNCH-ROOM. WESTON ELECTRICAL INSTRUMENT CO.



pearance compares favorably with a high-class hotel or restaurant.

#### Bill of Fare.

Lunch is either table d' hote or a la carte. The table d' hote costs twenty cents, and the patron is entitled to as much of any or all the dishes as he may desire. Following are daily menus for a recent week :

#### MONDAY

|              |                                |                 |
|--------------|--------------------------------|-----------------|
|              | Green Pea Soup                 |                 |
|              | Roast Ribs of Beef, Dish Gravy |                 |
|              | Veal Pot-Pie                   |                 |
| String Beans |                                | Mashed Potatoes |
| Apple Pie    | Cocoanut Pie                   | Mince Pie       |
| Tea          | Coffee                         | Cocoa           |
|              |                                | Milk            |

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#### TUESDAY

|            |                   |                         |
|------------|-------------------|-------------------------|
|            | English Beef Soup |                         |
| Roast Lamb |                   | Beef-steak Pie          |
| Green Peas |                   | Hashed-browned Potatoes |
|            | Tapioca Pudding   |                         |
| Tea        | Coffee            | Cocoa                   |
|            |                   | Milk                    |

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#### WEDNESDAY

|            |                         |                |
|------------|-------------------------|----------------|
|            | Cream of Tomato Soup    |                |
|            | Beef a-la-Mode          |                |
|            | Curry of Lamb with Rice |                |
| Lima Beans |                         | Baked Potatoes |
| Lemon Pie  | Apple Pie               | Mince Pie      |
| Tea        | Coffee                  | Cocoa          |
|            |                         | Milk           |

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#### THURSDAY

|                   |                          |                 |
|-------------------|--------------------------|-----------------|
|                   | German Noodle Soup       |                 |
|                   | Roast Veal with Dressing |                 |
|                   | Beef Croquettes          |                 |
| Stewed Tomatoes   |                          | Boiled Potatoes |
|                   | Macaroni                 |                 |
| La Marche Pudding | Vanilla Sauce            |                 |
| Tea               | Coffee                   | Cocoa           |
|                   |                          | Milk            |

## FRIDAY

|                                     |           |                  |           |
|-------------------------------------|-----------|------------------|-----------|
| Clam Chowder                        |           |                  |           |
| Broiled Shad                        |           |                  |           |
| Boiled Beef with Horse Radish Sauce |           |                  |           |
| Succotash                           |           | Creamed Potatoes |           |
| Cocoanut Pie                        | Peach Pie |                  | Apple Pie |
| Tea                                 | Coffee    | Cocoa            | Milk      |

## SATURDAY

|                |        |                   |      |
|----------------|--------|-------------------|------|
| Vegetable Soup |        |                   |      |
| Roast Lamb     |        | Minced Roast Beef |      |
| Peas           |        | Boiled Potatoes   |      |
| Chocolate      |        | Pudding           |      |
| Tea            | Coffee | Cocoa             | Milk |

The table d'hôte lunch is served by volunteers from among the force, who are compensated by being permitted to lunch at the expense of the club, and to whom the company allows enough extra time at noon to insure their having the full forty minutes recess. They usually serve a month at a time.

### Lunch Counter.

For the convenience of those who do not care to take the table d'hôte, there is a lunch counter where members may buy what they choose, and wait on themselves. Following is the bill of fare:

|   |     |
|---|-----|
| Cup of Tea, Coffee or Cocoa, .....  | .03 |
| Glass of Milk, .....  | .03 |
| Pie .....   | .05 |
| Pudding, .....  | .03 |
| Bowl of Soup with Bread and Butter, .....   | .05 |
| Veal Pot-Pie, .....   | .08 |
| Beef-steak Pie, .....   | .08 |
| Baked Beans, .....  | .08 |
| Roast Beef, Lamb, or Veal, or Beef a-la-Mode, or<br>Broiled or Baked Fish, with two kinds of Vege-<br>tables, and Bread and Butter, ..... | .12 |
| Ice Cream, .....  | .05 |
| Beer—bottle, .....  | .05 |
| Soft Drinks, .....  | .05 |
| Ham, Cheese or Corned-Beef Sandwiches, .....  | .05 |





THE KITCHEN. WESTON ELECTRICAL INSTRUMENT CO.



The writer of these lines has had the pleasure of lunching several times with the Weston Employees' Club, and can affirm that few business men in New York City who pay from fifty to seventy-five cents are as well served in either quality or quantity as are the employes of the Weston establishment.

When the club was started there was considerable hesitancy about permitting the sale of beer. The members who had been in the habit of having beer with their luncheon protested that it would be unfair to impose such a restriction, whereupon the club decided to make this concession, *but*, it was clearly understood, *only as an experiment*. Beer is sold whenever the club is open—at luncheon and on entertainment evenings. The experiment is now a year old and there has not been a solitary instance of the slightest abuse of the privilege.

To the lodge-keeper has been given the right to sell tobacco.

#### The "Cabinet."

The Executive Staff (the heads of departments) are required by the company to take their noon-day meal on the premises, it being thought that this arrangement would result in a daily conference of the company's advisers—its "Cabinet." Therefore a room for this purpose was built in the dining hall, and here the chiefs of staff lunch as the guests of the company which contracts with the club for this service, and, although the bill of fare differs in no respect from the general card, the club receives twenty-five cents per head, as against the twenty cents paid by all other patrons; the extra compensation being to pay for the services of a waiter provided by the club and for the privacy essential to the object of this daily meeting.

Here some twenty-five men gather around a large, elliptical oak table and discuss coincidently their luncheon and all phases of the business. Every part of the work is covered, from the fundamental scientific principles to the packing and shipping of the finished instruments. Thereby the daily operation of every department is more perfectly

collaborated, and the work as a whole greatly facilitated. If there are obstacles in one department and delays in another, the movement of the whole establishment is hampered, for the entire works run as one machine—into one department comes the raw material, and it passes through regular and continuous processes until the shipping clerk delivers the completed product to the transportation agent.

Here is the place to find fault, to criticise, to suggest, to recommend, to bring to executive notice the delays and difficulties encountered in any part of the work.

Here is obtained a clear understanding as to the operation of the entire plant—here a survey of the whole organization may be effected daily, and here is generated the enthusiasm, inspiration and co-operation so necessary to the highest success of any aggregation of workers in any and every field of human effort. With the executive staff at luncheon are frequently the president and some of the directors. Here is the soul of this little universe.

In considering any part of this enterprise it must be remembered that the social experiment, the social economics, the more progressive methods of management, were inaugurated less than a year ago, after the new factory was opened, and that all these features are, as yet, in the experimental stage; but both the company and the employes express the opinion that this institution, this daily conference of department chiefs, is developing steadily along the lines of the expectations of its founders. If this be true, and of its truth the writer is convinced, it is due above all else to the fine temper of both employer and employed—to the mutual respect and confidence in each other entertained by both the parties to the arrangement.

Next to the "Cabinet," on the west, is the directors' lunch-room, upholstered in green leather, but seldom used, the directors preferring to join the department managers.

#### **Library.**

On the east is the library, divided from the main restaurant by a low railing. It is, as yet, in its beginning, but



A CORNER IN THE LIBRARY. WESTON ELECTRICAL INSTRUMENT CO.



the company has provided a large number of standard reference works, literary and scientific, to which are added (by the company) many periodicals, the chief portion being scientific publications and those relating to machinery, engineering and electricity. The Weston Club Library, in charge of a library committee, has been made a branch of Newark's excellent Public Library and is permitted to draw therefrom five hundred volumes at a time, which are distributed on precisely the same conditions as at the Public Library. One of the results of thus bringing to the attention of the employes the industrial progress of the age is that a number of them are taking scientific, engineering or mechanical courses in the Newark Technical School or in correspondence schools.

#### **Cosy Corner.**

In an otherwise useless space, across the stairway from the two small luncheon-rooms, is a "cosy corner," furnished with wicker rockers, tables, and other attractions, which is a favorite after-lunch rest and chat rendezvous for the feminine members of the club.

The little art gallery which brightens the "cosy corner" is the contribution of members, several of the excellent, large photographs being the production of the camera section.

#### **Kitchen.**

The kitchen, 35 x 25 x 16, is an extension off the dining-hall at the south, directly over the refrigerators and ice-making plant, and connected therewith by a stairway. It is furnished with ranges, grills, great copper-jacketed kettles for soups and stews, a steam-heated serving table, dish-washing machinery, and all the various utensils—in fact, it is a complete hotel or restaurant kitchen, spotless enough to delight the heart of the most exacting Dutch housewife, and presided over by a "chef" until recently in one of New York's most noted hotels. The kitchen help is employed by the club, and has no connection with the regular force.

The ice-making plant and the ample refrigerators—one for meats and one for vegetables, etc.—form a prime element in the financial success of the restaurant. Meats, vegetables, butter, groceries and other supplies are bought in quantities. Not only does this effect a considerable saving in cost, but it permits many otherwise impossible economies.

#### **Restaurant Finances.**

Every clubman the world over knows that the kitchen and restaurant are apt to spell success or failure, both social and financial. How is it with the Weston Employees' Club of Newark, New Jersey? The initiation fee is but twenty-five cents, and the monthly dues the same—about a cent per workday. A lunch of six courses, excellent in quality and unlimited in quantity, is served for twenty cents, while for fifteen cents the frugal man or woman may fare sumptuously on a roast or an entree or fish, with two kinds of vegetables, bread and butter, and coffee, tea, cocoa or milk; or, descending the expense scale another notch, for eleven cents one may have meat pie or an entree, and tea, coffee, cocoa or milk. The more economical may bring their lunch from home and eat in the restaurant, supplementing from the lunch-counter bill of fare, or not, as they choose.

In view of these facts, it is gratifying to be able to report that the club has arrived at a point where, after all expenses, including renewals and repairs, have been met, a little surplus is earned. Of course, the club pays no rent; this, and the original plant and working capital, being the company's contribution.

Had these lines been written a few months earlier, a different story would have been told. The Board of Governors and House Committee were not experts in club management, and, naturally, mistakes were made. This will surprise no experienced clubman; for what on earth is more difficult to organize and conduct successfully than a social club which includes a restaurant? At the beginning a contract for lunch service was made with a caterer. Result—poor lunch, financial failure. Another caterer was tried.





PIANO AND PIANOLA IN RECREATION HALL, WESTON ELECTRICAL INSTRUMENT CO.



Result—ditto. Then the club resolved to be its own caterer.  
Result—excellent food, good service, financial prosperity.

#### Recreation Hall.

In the east wing, at a right angle to the dining-hall and connecting therewith, is the recreation hall, 182 x 26 x 16 feet, furnished with a baby-grand piano and pianola, billiard and pool tables, chess, checkers, cribbage, dominoes and other games, fencing and boxing outfits, and the commencement of a gymnasium. Here entertainments are given fortnightly, care being taken that the regular monthly club meeting shall coincide with an entertainment.

Frequently at noon there is an impromptu dance, the "baby-grand" and the pianola furnishing the music.

#### Home Talent.

The entertainments are music, vaudeville, legerdemain, stereopticon shows, etc., and, aside from the educational features, the performers are confined strictly to the employes. The writer asked a club member why outside players, singers, musicians, magicians, etc., were not invited. His reply was the condensed essence of the spirit of this whole social success. He said: "Yes, we could have many brilliant and famous men in our little theatre, and we would enjoy them, but we think it better for the club, better for ourselves, that we develop and utilize home talent; and among our four hundred members we find talent a plenty. You should have been at our musicale last Friday evening. *Such* singing! I assure you that you have many times paid a high price for music not a quarter as good. Yes, we believe in developing home talent in every department of the club—in its organization and administration, and in the literary and educational departments, as well as in our amusements, our games, our base-ball and foot-ball, our camera section, etc. It is this that interests everyone, develops everyone, gives each individual a chance to contribute to the success of the whole, places responsibility on all.

### Valuable Training.

"This policy is training men and women to be more useful to themselves in their daily vocation, and, therefore, more valuable to their employers; it is making them more self-reliant and capable as citizens; it is educating them somewhat in administrative and executive work, and one thing we have learned from all our mistakes and failures, as well as our successes, in running this club is that the organizing, administrative chief of a great industrial organization is entitled to large reward. Yes, this club is a good school."

### The Natatorium.

Directly under the dining hall is the natatorium, 160 feet by 35, with a 20-foot ceiling—light, bright and cheerful. The writer of this sketch labors under difficulties. He has been directed to say nothing laudatory of the company, nor to refer to its head, who is the moving spirit scientifically, mechanically and altruistically, nor is he permitted to indulge his bent in the use of adjectives; but he is compelled to say that his bath (or rather these baths) is a splendid affair. The tank, cement and enamelled brick, is 150 feet long, 18 feet wide, and from  $4\frac{1}{2}$  to 9 feet deep. The flooring is a handsome white mosaic tiling tastefully bordered in green, with a couple of two-colored marble steps, about 75 feet long, leading up to the batteries of shower and needle and tub baths—six of each. A filtering plant is being installed.

Certainly in New York city there is no bath, public, private, or club, so roomy or so finely housed and equipped as this bath of the Weston Employes' Club. Here, as in the lavatories, the plumbing is fine in quality and pleasing in style.

Connecting on the north is a large room now being fitted as a dressing-room, and the arrangements are such that the men may go directly to or from bath and work.

Bathers are required to take the shower before the plunge. Certain days and hours are set apart for the women.

The club is considering the organization of water sports—polo, swimming matches, carnival, etc.



BILLIARD-ROOM IN RECREATION HALL. WESTON ELECTRICAL INSTRUMENT CO.



### **Bicycle Depot.**

At the entrance to the works is a spacious room especially designed and furnished as a bicycle station. If anyone doubts the permanence of the bicycle as an institution of both pleasure and utility, he will be converted by a glance into this well-filled "wheel-room."

The bicycle, in connection with such an establishment, is most suggestive. Along the side of the plant runs a trunk trolley line which, by the transfer system, will carry one almost anywhere within Newark's extensive limits for five cents; and this and the bicycle bring one face to face with an exceedingly interesting development of modern life. Not many years ago the wealthiest merchants of Paris lived in the upper stories of the buildings that were their factories, their storehouses, their salesrooms. In fact, many such instances still survive in European cities. The lack of transportation facilities and the insecurity of life and property made obligatory this manner of life. For the same reasons factory employes were, and very largely are still, compelled to live in the immediate neighborhood of their employment; the long hours (10, 11 and 12) exacted being another chain binding them close to their place of labor. How different with the American workman at the beginning of the twentieth century! He (or she) may live in the actual country. A few minutes' delightful exercise on the wheel lands the passenger at workshop or at home, while those who prefer the trolleys are almost equally independent.

### **Outdoor Sports.**

Outdoor sports are popular, and becoming more so. The baseball and football teams are enthusiasts, and match games are played weekly during the season.

The camera section makes frequent Saturday afternoon excursions to the country. These are combined exploring, botanical and photographic picnics, and are hugely enjoyed by young and old. Many of the fine photographs that adorn the club are a result of these holidays.

#### **Hospital.**

A little hospital, furnished with a cot and the necessary simple appliances and remedies, is under the supervision of a man who has served an apprenticeship as a trained nurse. Owing, however, to the peculiarly favorable sanitary conditions under which the Weston employes work, combined with the safeguards thrown around the machinery, the hospital is very seldom in demand.

#### **Nine-Hour Work Day.**

The factory originally ran on a sixty-hour basis, which averaged ten hours per work day. A short while ago it occurred to the company, in view of the fact that the plant was somewhat distant from the homes of the employes, to shorten the hours to fifty-four a week, and give an average nine-hour work day.

#### **Saturday Half-Holiday.**

Knowing by experience that a full half-day on Saturday was preferred by the employes, even to the extent of making up for it on the other days of the week, the company decided to close the works at 11.50 A. M. on Saturdays, thus giving ample time to make preparations for enjoying the remainder of the day.

Formerly the day began at 7, had an intermission from 12 to 12.30, and ended at 6. The company lengthened the lunch period from 30 to 40 minutes, and gave the employes their choice of curtailing the day either in the morning or evening. The question was put to vote, and it was determined to shorten the latter part of the day. The employes express the highest satisfaction with the present arrangement, and the company states that the weekly product has not diminished.

#### **Fraternal Feeling.**

As an indication of the fraternal feeling that exists, it may be mentioned that as these lines are being written





SWIMMING-POOL AND BATHS, WESTON ELECTRICAL INSTRUMENT CO.



arrangements are under way by the employes of one of the departments to give a farewell reception and supper to a woman who has been in the Weston employ for many years, but who is about to retire from business.

#### **Economy of Highest-Grade Equipment.**

Although the company spent money lavishly on the club-rooms and furnishings, as well as in the factory, this was done in accordance with its theory that the best equipment is, eventually, the most economical. Thereby the cost of maintenance is reduced to a minimum, and no appreciable deterioration of its property is experienced by the company or the club. An especial advantage of this policy, so far as the factory is concerned, is that the costliest, highest grade machinery, tools and appliances are not so likely to break down as a less expensive, lower quality outfit, and, therefore, the Weston Company has thus insured itself, as far as possible, against interruption in its operations.

#### **The Verdict.**

One of the oldest employes of the company, in reply to a question by the writer, said: "There is no doubt that the social experiment here made by the Weston Company is already a success. There is no doubt that the employes, as a whole, for there are fault-finders everywhere, appreciate all that the company has done and is doing to make their employment safe, healthful and comfortable."

Why has this venture attained so large a measure of success, when so many similar attempts are failures? was asked.

"Because, in my opinion (first) the employes believed from the start that the company was actuated by a sincere desire for their welfare, and (second) because the club has not been 'fathered' by the company. It is ours in fact as well as in name. If we make it a success, the credit is ours; if a failure, on us must rest the blame. If we want advice, we go to the company. If we are in trouble, we go to the

company: but, beyond giving counsel when consulted, the company never interferes.

"We realize, however, and the company realizes, that only a start has been made; but the success already gained fills us with hope for the future.

"The buildings in which the club is now housed are a part of the general industrial plant, but in moving from the old site to this greatly enlarged one the company could spare these rooms for a time, and here we are studying the problem of what social and educational features may advantageously be added to a great manufacturing plant—the 'what?' the 'why?' the 'how?'

"Already the company is so much encouraged that it is contemplating the erection, in the triangle facing the works, of a combined office and club building, constructed with reference to all the varied needs of business administration and club life. Of course, this will not be done until the requirements of the manufacturing department drive the club and the offices out of the existing structures.

"I have alluded to the proposed administration and club building, but there are other things under consideration—some of them in sight. For instance, a mutual benefit association and a building and loan association are immediate possibilities.

"Thus we believe that in all departments—industrial, social, educational, altruistic—the Weston Company and the Weston employes are working along sane lines; lines that cannot fail to benefit both employer and employe—lines that must benefit the community at large, by setting an example of how labor and capital may contentedly work together, side by side, each sharing the burdens, the pleasures and the profits of the other."

#### **Opinion of a Woman.**

On one of his visits to the works, the writer was accompanied by a woman of broad culture, wide travel and acute observation—an educator of national reputation, and largely experienced in public life. After spending several hours in



TUB, SHOWER, AND NEEDLE BATHS. WESTON ELECTRICAL INSTRUMENT CO.



the establishment, examining its every department, industrial and social, and lunching with the "Cabinet," she said, "Had I not had this practical demonstration, nothing could have made me believe that any manufacturing concern on earth was so interested in the health, the comfort, the pleasure and the general welfare of its employes."

**Mr. Weston's Comment.**

This was repeated to Mr. Weston, whose simple comment was, "We have done nothing, as yet, save to make a few rough beginnings."



## **A Glimpse at the Manufacturing Departments.**

### **A TRIP THROUGH THE WORKS.**

Having glanced at the social side of the Weston organization, the reader may be interested in a brief survey of the mechanical and manufacturing side. Perhaps one ought, first, to have some idea of the character of the business carried on. It should be said, however, that these lines are intended chiefly for the lay reader, not for the electrical expert; therefore technical terms are avoided as far as possible.

Electricity having become a staple manufacture, an article of commerce, produced, bought and sold precisely as any other commodity, methods of weighing or measuring the goods, so to speak, became a necessity. It also became necessary to gauge this power, as steam is gauged by the dial-indicator to be seen in every engine-room.

### **Standards of Electrical Measurement.**

Further, just as Congress has authorized systems of weights and measures, and has at great expense and with infinite care established units or standards of these—the standard of lineal measure, for instance, being a metal yard composed of an alloy that heat or cold expands or contracts

very slightly, and which is preserved and guarded in Washington as sacredly as are the millions of Treasury gold—so has Congress enacted units or standards for the measurement of electricity; the standard units being: the volt, for pressure; the ampere, for current, or volume; the ohm, for resistance; and others for capacity, induction, etc.

#### **The Weston Specialty.**

The business of the Weston concern, then, is the manufacture of instruments for measuring electricity—instruments capable of indicating within extremely close limits the electrical quantities with which we have to deal in the laboratories and in all the various forms in which electricity is used to produce power, light or heat. In other words, we must be able to accurately measure any electrical force.

#### **Important Branch of Electrical Art.**

When the multiplicity of uses to which electricity is put to-day as a factor in the various arts is considered, the importance of this branch of electrical science will be realized. As an example, take the incandescent lamp industry and bear in mind that the energy required to bring any lamp to a standard candle-power must be known exactly and kept exceedingly uniform. If this is not done, and the necessary regular voltage is not given, the results are irregular light and a tremendous waste of the life of the lamp, for an increment of one volt will diminish the life far out of proportion to the ratio between one volt and the one hundred and ten volts, say, for which the lamp is designed. Not only, therefore, is a saving in lamps effected, but a large saving in coal bills, due to the fact that we have accurate means of telling how our dynamos are run, or knowing the volume of current or power being generated. As the dynamos are run by steam engines, the direct relation between fuel expense and electric power produced will be comprehended.





A CORNER IN ONE TOILET-ROOM. WESTON ELECTRICAL INSTRUMENT CO.



### **Pioneer in the Field.**

The Weston Company has revolutionized this department of the electrical art. Its inception was due to the fact that sixteen years ago no meters were obtainable which could be depended on. The most extravagant tests were required for the most elementary measurements. Being engaged in the manufacture of dynamos, Mr. Weston had no reliable facilities for measuring the forces with which he dealt, so the old adage held true and "necessity became the mother of invention." Now his instruments are world standards. They are adaptable for the most delicate galvanometer measurements where the deflections of the instrument are obtained with a current of the strength of one five-billionth of an ampere, and are applicable, as well, for any range up to the highest capacity generated by Niagara or the power plant that drives a metropolitan system of railways. To appreciate the infinite delicacy of the first-named measurement, it may be said that a current of the strength of half an ampere illuminates the standard sixteen candle-power incandescent lamp; yet the galvanometer will distinctly indicate a change of power so incredibly small as to be beyond any possible human comprehension.

### **Tour of the Factory.**

Shall we now take a walk through the works? A view of what may be seen in the various buildings will prove interesting.

### **Fire Proof.**

Before we proceed, it may be remarked that the whole establishment is practically fireproof. Extinguishers are placed at convenient distances, and a fire plant with hydrants distributed throughout the factory is capable of throwing 1,000 gallons per minute. So convinced is the company of the efficacy of these precautions that no insurance is carried.

### **Dust and Dirt Proof.**

Another important feature is that the buildings are designed to be as nearly dustproof and dirtproof as possible,

for the reason that with such delicate operations (probably the highest-class mechanical work done in the world) even dust may become an important factor in retarding the manufacture of the instruments and in interfering with their performance after completion.

#### **Exacting Character of Operations.**

By the following illustrations one will comprehend something of the extraordinarily difficult character of the work the Weston Company is obliged to do in its everyday routine: The minuteness of some of the parts used in certain instruments may be realized when it is known that 9,500 of a certain type of springs weigh only one ounce. Wire is "drawn" and constantly employed which has a diameter of from one-half to one-third that of the average human hair. Jewels are sized and ground. Nuts are made of dimensions so small that their shape, perfect hexagons, can scarcely be distinguished except by the strongest eye; these are drilled and threaded the same as any large nut, and for them are made screws to correspond. Certain parts of the instruments require a degree of accuracy to the limit of one fifty-thousandth of an inch, and work is frequently done which must be correct within one one-hundred-thousandth of an inch. Aluminum tubing, the smallest that can be made by any outside concern, is here so reduced in diameter that the human eye can barely perceive that it is hollow. This tubing, when utilized for galvanometer pointers, hands, or indicators, has a wall three-quarters of one-thousandth of an inch thick.

#### **Special Alloys.**

For many electrical and mechanical purposes here required, no known metals were suitable; and it became necessary to discover special alloys containing several component metals of proportions exquisitely exact. In the Weston research laboratory a number of alloys have been discovered having electrical and mechanical properties hitherto entirely



VIEW LOOKING DOWN MAIN SHOP. WESTON ELECTRICAL INSTRUMENT CO.



unsuspected, and many startling and revolutionary characteristics have been revealed. For example, one alloy was found with a negative or decreasing temperature co-efficient. This was directly contrary to the existing dictum of science which held this to be the dividing line between metals and non-metals, as only non-metals were supposed to possess negative temperature co-efficients. Another alloy shows no variation of resistance for temperature changes.

#### **High-Grade Employees.**

These, and many other illustrations that might be given, demonstrate the necessity of having high-grade employees, and explain why the company cultivates this class of labor to the exclusion of all others.

Our examination of organization and operations must necessarily be hasty, and confined to the more important features, for we have but little time at our disposal—while a moderately careful inspection of the manifold processes would require days.

#### **Receiving Department.**

The most logical entrance to the works is, perhaps, with the raw material, and, naturally, then, we should start at the receiving-room where all material comes into the establishment and whence it is distributed to the various manufacturing departments. We shall not attempt to follow the various stages of development accorded to any one piece of raw stock, but rather to generalize; for when it is borne in mind that some 20,000 separate parts enter into the manufacture of the Weston instruments, it will be readily understood that a description of the treatment of one individual part would not necessarily be descriptive of any of the others.

The receiving-room, to the door of which the Pennsylvania railroad runs a spur, is a small extension on the eastern side of, and on a level with, the main workshop—material, therefore, does not have to be handled from one level to another in any stage of its progress to the shipping department.

### **Factory.**

From the receiving-room, we come immediately to the main shop which contains more than 50,000 square feet of floor space, and where are located the machinery, milling and drilling and tapping departments; the tool departments for general tool work, for special tool and die work, and the "arsenal" which delivers the various tools required by the employes in the performance of their work; the automatic, buffing, winding, inspection, finished parts, and assembling departments, and, lastly, the laboratories; all being so arranged that work progresses systematically from one to the other, insuring easy handling, and avoiding, as far as possible, any retracing of steps.

### **Machinery and Tool Departments.**

At the foundation of such an establishment are the tools and machinery—the tools for making tools, and the tools for making machinery and the parts of instruments.

The machinery department does the general heavy work necessary to keep in repair the tools and machines required to operate a plant of this size, and, as the work on the various instruments is most exacting, the appliances, many of which are original, must be kept in perfect condition—therefore this section is a very busy one.

Time forbids more than a glance into this important department in which several hundred thousand dollars is invested—there being duplicates of everything in the shape of tools and parts of machinery, so that no man or machine may be delayed a moment because of such lack. The tools are stored in a protected vault, and are given out on metal checks bearing the employe's locker number. The exigencies of manufacture caused by the development of a new art create a constant demand for new and singular tools. Among the novel examples to be found here is a die and press which, with one movement of the controlling lever, is capable of imparting successively seven distinct punching, cutting and bending operations. The ingenuity of this tool will be better





BICYCLE DEPOT. WESTON ELECTRICAL INSTRUMENT CO.



understood when it is known that these seven operations are performed on a bit of very thin metal plate with a surface of about one-half by one-sixteenth of an inch. Not so long ago these were separate operations by separate machines, and a little earlier all such operations were performed by hand.

#### **Milling, and Drilling and Tapping Departments.**

The milling department does both light and heavy work, although the amount of heavy work is comparatively small in connection with the manufacture of instruments.

As nearly every part used has to be fitted together by screws or pins or studs, the demand on the drilling and tapping department will be realized.

#### **Automatic Department.**

Possibly the most interesting department in the entire establishment is that in which are located the automatic machines into which raw stock is fed, and from which, produced solely by its own operations, the finished product is delivered. Without human intervention these exquisitely designed and readily adjustable machines produce the finest degree of workmanship, and some are capable of making as many as one hundred and forty-two distinct operations on a piece of material before discarding it. Of course, it must be understood that automatic machinery is not intended to handle heavy materials, and in this respect the Weston Company is particularly fortunate, as nearly all of the parts used in its instruments are extremely small, with rigid requirements as to dimensions, therefore the necessary degree of accuracy can be attained only by the aid of machines of precision. For example, the pivots used on the moving coils must correspond in diameter to within a ten-thousandth of an inch, and these pivots are used in every instrument the company manufactures. The raw stock is a wire varying between six-hundredths and fifteen-thousandths of an inch in diameter—the smallest size being about five times the thickness of an average human hair. By a special process

the wire is tempered to extreme hardness, and is then fed through the automatic machinery. Complete screws, milled and threaded, are made of a diameter only a fraction of that of these pivots.

Almost human in their operations are automatic machines, many types of which are in use here. Only one, however, a screw-making machine, comparatively simple and easily described, will we examine; for one example will illustrate the principle of automatic machinery. The raw stock is a brass rod shoved into a tube and connected with the machine which proceeds to bite off a screw-length; another hand turns it into a screw-form, a third cuts in the thread, and a fourth mills in the slit on the top for the screw-driver, when the finished screw is delivered into its receptacle. This operation continues until the rod is nearly used up, when the machine, with an intelligence almost uncanny, rings a bell announcing that it is about out of stock and needs a new supply. It must be remembered that the overseer, after adjusting the machine, pays no attention whatever to it save to see that it is kept supplied with raw material.

During the process of automatic manufacture, the piece of metal under operation is worked in an automatic oil bath—i. e., it is constantly under a stream of oil, while the machine, itself, is automatically lubricated.

The infallibility of automatic machines is marvelous. A human hand may drop one of these infinitesimal bits of metal, not larger than the tiniest watch screw, or make a false move with a tool. Not so with the automaton—so long as the machine itself is in perfect order so long will it turn out perfect work with unfailing regularity. The microscopically minute nuts and screws before mentioned are the product of automatic machines, as are the pivots, pivot bases, dowels and stud-pins, bezels, cores for the magnetic system of the instruments, brass bodies of binding posts, etc.

By such ingenious processes, whereby an American workman is enabled to do the work of many men, tremendously increasing per capita production, the United States is beginning to dominate the world's manufactures, and the

American artisan has become the most highly paid workman on earth.

#### **Making the Wire.**

Wire is an important factor in the manufacture of Weston instruments, and some is required of such fineness and such peculiar conductive and non-magnetic qualities that the company has been compelled to evolve new alloys of metal and original methods of making wire. The alloy is cast into ingots, which are first "rolled" into square rods, and then "drawn" into round rods through steel dies stage by stage till reduced to a diameter of six-hundredths of an inch.

"But how is the wire brought to the exquisite delicacy of this skein, as fine and bright as raw silk?" Look through this disk. You will see a small diamond, and if you look very sharp and your eyesight is very keen you will notice a hole so tiny that you would hardly believe it was there unless assured of the fact. The aperture in this disk is a little larger, and in this one a little larger still. As the wire, drawn by a swift-running motor, leaves the steel dies it passes through a series of diamonds till it finally emerges, mile upon mile, sometimes one-half of one-thousandth of an inch in diameter, two hundred and fifty miles to a pound—almost as fine as the filament spun by a spider.

For some purposes metal "strips" are used, instead of wire. These follow the wire process down to the last stage, when they are "drawn" between, instead of through, jewels which reduce them to the desired diameter—some being as thin as one-fifth of a human hair.

#### **Winding Department.**

In the winding department the resistance spools are wound with hundreds of layers of wire for carrying the current. The wire is insulated by being wound with silk of a fineness impossible to describe, and between each layer of wire there is a further insulation of oiled paper. To prevent induction, these hundreds of layers of current-conveying wires are wound half one way and half the other. For the exceedingly

sensitive galvanometers, it was found that no silk in the market was suitable, as it contained enough iron to affect the operation of the instruments, therefore it became necessary to manufacture a special silk. It is a fact almost incredible but intensely interesting that there often is enough iron in the human touch to affect the magnetic qualities of these delicate wires and silks.

#### **Basement.**

The basement, of equal size with the main floor and excellently lighted and ventilated, is particularly dry, and is used chiefly for storage purposes, but has also a large amount of space devoted to two laboratories, and still more space is allotted to soldering and polishing departments.

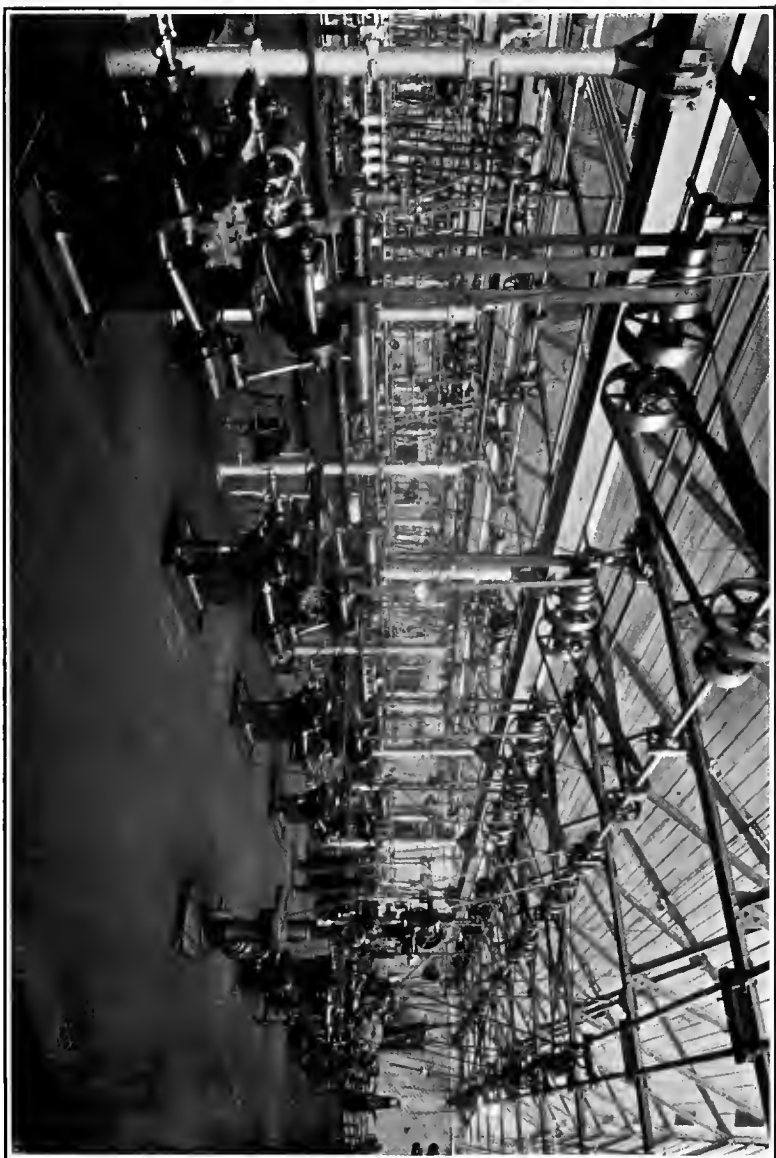
#### **Outlying Departments.**

Following the progression of manufacture we must now for a time leave the main shops, and visit those departments which are, owing to their nature, producers of dirt. These are situated in separate buildings east of the main shops and may be enumerated as follows: Cabinet making, forging, grinding, plating, japanning, automobile house, storage for dangerous oils, and, lastly, the gas and power plants. The building devoted to the storage of dangerous oils is separated from all other buildings, and is divided into four distinct fire-proof magazines.

#### **Power and Gas Plants.**

The power plant is equipped with a duplicate battery of boilers, also a duplicate set of engines, generators, blowers, pumps, etc., so that if trouble arises no serious delay will follow—besides, this double outfit permits the generating apparatus to be kept in excellent condition.

The company runs its own gas plant with a capacity of 5,000 cubic feet an hour, and with reservoirs for the surplus. As another link in the chain of safety precautions for life and property, the gasoline tank is underground.



DEPARTMENT IN MAIN SHOP. WESTON ELECTRICAL INSTRUMENT CO.





### **Making a Magnet.**

In the forge shop a variety of work is done, but the most important and interesting is that of making the magnets which create the magnetic field for all direct current instruments. Cast iron, soft iron or soft steel will not retain magnetism for any considerable length of time, whereas properly hardened steel, employed under the conditions that obtain in the Weston instruments, will hold the power indefinitely. The finest obtainable magnet steel is bent into the various magnet forms which are placed on an automatically moving rack in a heating chamber, or retort, about twenty feet long, so laid that the magnet blanks are carried slowly over gas jets of uniformly intense temperature for a precise period of time, when they are delivered into cold water, which completes the hardening process.

The blanks are charged by being brought into contact with a large electro-magnet (a bar of soft iron wound with a conducting wire) which, being connected with a dynamo or with batteries, makes a magnet of the soft iron, that, in turn, imparts its magnetism to the hardened steel form, where the magnetic power is stored permanently.

### **Polishing.**

As most of the Weston work is as delicate as that of a watch, polishing becomes a factor of prime importance. To this process three departments are devoted: (1) the grinding, where the rough surface is made smooth; (2) the polishing, where a high degree of smoothness is secured, and (3) the buffing, where the final polish is given by disks of walrus hide revolving with inconceivable rapidity against the surface to be treated. The grinding is done in one of the outlying buildings, the polishing in the basement of the main building, and the buffing on the first floor of the same.

In these operations dangerous to health, particularly the first, because of the grit and impalpable metal dust, employes are surrounded with every possible safeguard; powerful exhaust fans, constantly in operation, extract practically all

the noxious substances, and the highest degree of cleanliness is maintained.

#### **Plating and Japanning.**

After being polished the heavier pieces, such as the frames and cases, are either plated or japanned. Having discovered that no plating procurable could endure the chemical conditions to which electrical measuring instruments are frequently subjected by their peculiar surroundings, the Weston Company established its own plant, and here is done plating of all kinds—copper, brass, nickel, etc.

For the finishing of various parts the japanning process is employed—the lacquerlike method imported from that clever people in the farthest East. This is a fine and difficult operation, and, like the grinding, dangerous to health, but from a different cause—noxious fumes, instead of dust. In this occupation men frequently go insane, but not in the Weston works, where the studios are kept scrupulously clean at all times, the floors oiled, and every possible precaution observed—particularly in the baking-room, which is so constructed that not a whiff of fumes or gas escapes except by the tall chimney.

In about the same manner that varnish is applied, the lacquer is painted on the metal, and, as dust is the worst enemy of first-class work, it is, perhaps, needless to say that the coal handling and burning must be carried on in a room without connection with that in which the japan is applied. To be more precise, there are four divisions: (1) where the metal is painted, (2) the rubbing department, where the lacquer is brought to a mirror-like smoothness, (3) the baking-room, and (4) the furnaces.

After being lacquered and polished, the pieces are transferred to the ovens beneath which are clay crucibles, with grate bottoms to permit draught, filled with precisely the amount of fuel necessary to insure a perfect baking. These crucibles, resting on rollers which run on tracks, are lighted and shoved under the ovens—when they are burned out, a perfect baking has been accomplished.

Destructive explosions frequently occur in japanning establishments because they are so arranged that it is possible for the highly inflammable gases generated in the lacquering-room to come into contact with the burning gases from the ovens. In the Weston plant this cannot occur. Not only are the fires far removed from the workrooms, but there is no possible connection between them. The furnace gases are carried off by a tall chimney, and the workroom gases by an independent system.

In all these outlying departments, although the work is coarser than that of the main shop, the same rigid requirements are enforced with regard to the finished product. Many of the methods employed are the result of special investigation made by competent men who visited various plants throughout the country, but it will usually be found that these methods are considerably and advantageously elaborated.

To the main shops we must now retrace our steps. The general processes in the manufacture of the various parts are completed, although we have observed but a very few of them.

#### **Inspection.**

With work of the character described, it will readily be understood that a rigid system of inspection is imperative. In the first place all raw material, on arrival at the factory, is rigorously tested for electrical, magnetic and mechanical requirements, and is examined again on receipt by the department where the process of manufacture begins.

#### **Every Employee an Inspector.**

At the time he is engaged, every employee is made to understand by his foreman that he is expected to become an inspector of all work that passes through his hands—in other words, he is given the most positive instructions not to accept or pass any piece which does not come up to the standard of his gauges. If a discrepancy is found, it must be reported to the foreman, who will cause the imperfect

part to be cast aside. Before leaving the department the piece is carefully examined by the foreman, who passes it to the department of inspection, which receipts for, inspects and sends it along to the next department. After each operation throughout the entire process of manufacture, the part is made to conform to gauge. In this way the work goes through the various departments until it reaches the inspection department for the final examination of the finished part, which means that up to this point each piece has passed the inspection of possibly five or six foremen, two or three score of workmen, and has gone a number of times through the inspection department, which thus becomes an "inspection clearing-house."

#### Inspection Department.

Having survived all these examinations, the parts arrive for the last time at the inspection department, where each is subjected to the severest scrutiny and tests. Here the examination *must* be absolute, for the piece is now finished and goes hence to the stock department (a room on the main floor, with a protected vault in the basement), where it lies till called out by the assembling department to be combined with other parts into the completed instrument. The inspectors, about twenty in number, many of them women, are supplied with scales, rules, micrometers, magnifying glasses, gauges, methods of electrical testing, and every conceivable device applicable to this purpose, in order that any work which does not come up to the fullest requirements may be thrown out. The majority of the parts of the latest instruments are so small that they can be examined only by the microscope, and assembled only by machinery, the unassisted human eye and hand being too gross a tool.

This, however, is not the last inspection. If in the assembling of the instrument an imperfect piece is found, it is rejected; and the completed instrument is finally examined before being packed and shipped.

### **Electrical Inspection.**

We have dealt almost entirely with the mechanical inspection, but the electrical examination is even more necessary and more severe. This is perfected in the adjustment and calibration laboratory to which the mechanically completed instruments are now delivered.

### **Adjustment and Calibration.**

This vitally important department is equipped with the most perfect fundamental standards for electrical measurement, and also the most perfect methods for reproducing those standards. In fact, the most accurate means of establishing the standard volt is a product of the head of this establishment. We refer to the Weston cell. Heretofore a zinc cell, invented by Clark, has been utilized; but this possesses three fundamental objections: (1) it has an appreciable temperature error; (2) its chief electrode, zinc, is exceedingly difficult to obtain free from impurities, thus giving rise to local electrical action, and (3) the temperature error is uncertain, because the electro-motor force lags behind the changes in temperature. Through wide ranges of heat and cold the cadmium or Weston cell has no temperature error worth considering, and cadmium is easily purified in any quarter of the globe. These two all-important characteristics establish this as the most superior means we have for determining the value of the volt.

If, as is usually the case, it is desired to determine the value of the ohm by other means than by mathematical computation from the values of the Weston cell, and the silver voltameter—a method of measuring current by weighing the silver electrically deposited in a given time in a solution of known constituency, which is the most accurate if most time-consuming method of determining the ampere—the company has a large equipment of resistances certified by the Reichsanstalt (the German Government Bureau of Standards). That this bureau will certify no standards not made of Weston alloys, is a gratifying tribute

to the advanced state of the electrical and metallurgical arts in America. The company has also various certified resistances which it manufactures itself, and which are as accurate as the German standards. There is also the usual complement of bridges, galvanometers, etc., in which are included the best foreign and American products.

It might be mentioned that the reference-standard instruments, in comparison with which the various commercial instruments are checked up, are so delicate that, for example, a change of one part in seventy-five thousand of the electrical quantity to be measured is easily indicated.

In these laboratories, then, the instruments are adjusted and calibrated.

#### **Adjustment.**

Although, as has been seen, the most scrupulous care has been exercised in the manufacture of the instrument, it must not be forgotten that electricity is a force, a substance, a quantity so ethereal that it can be standardized or measured only by itself. Therefore variations in thickness of wire, components of alloy, quality of insulation, etc., so refined that men cannot determine them, are found in every instrument. It is said that no two human beings were ever created exactly alike—hence individuality; so, no two electrical measuring instruments are the same in every quality—each possesses its own individuality. All, however, must perform the same work, conform to the same standards—therefore each must be regulated by the master instruments. This is “adjustment.”

#### **Calibration.**

After the instrument has been adjusted, it must be calibrated: *i. e.*, the dial (to use an illustrative term), which here is an arc instead of a circle, must be adjusted to the instrument. With a watch or a clock this is unnecessary, for there we deal only with mechanical forces—the works are made, fitted into the case, the dial is set according to

rule, the movement is regulated, and the instrument is perfect.

Not so with an instrument for measuring electricity. Here the works are made as perfect mechanically as possible, then the movement (to again illustrate by an everyday term) is adjusted to the master instruments, the reference standards, and, finally, it is calibrated, *i. e.*, the dial is adjusted to the movement, no two dials being exactly the same. It is first discovered at what point on the dial the hand, or pointer, or finger of the instrument indicates a certain electrical force, and this becomes the basis for marking off on the dial, by an automatic dividing engine, the various measuring points, analogous to the time-measuring points on the face of a watch.

This is "calibration," and the instrument is now ready to begin active life.

If it may be permitted to once more refer to the wonderful delicacy of these instruments, it can be said that the movement for the power-house instrument, the heaviest made by the Weston Company, contains a moving coil, mounted to permit free revolution in the magnetic field, composed of an aluminum frame wound with four layers of wire insulated in silk, two pivot bases, two hardened steel pivots, two spiral springs, and one aluminum pointer, with cross-arm on which are mounted brass nuts for balancing purposes, the weight of the whole movement being  $23\frac{1}{2}$  grains, less than one-twentieth of an ounce; while the galvanometer movement, containing all the above except the pointer, weighs but  $2\frac{1}{2}$  grains, or  $\frac{1}{10}$  of an ounce. It is the latter instrument that will show a change in electrical current down to one five-billionth of an ampere.

#### **Packing and Shipping.**

The instruments are now ready to be packed and shipped. The packing is done in the most careful manner, and the goods are shipped by express, it being deemed inadvisable to subject the instruments to the rough handling encountered in freight transportation.

#### **Repair Department.**

Although the goods are shipped, our tour is not quite ended. We must visit the repair department, where the "pedigree" of every instrument is kept—*i. e.*, where is recorded the date of its original completion, and to whom it was sold and when. If it comes back for repairs, the record is continued. Not infrequently is received an instrument that the company has been notified, years before, perhaps, as stolen. The records make it easy to find the rightful owner, and occasionally the thief is bagged.

This is an important department, for not only are these instruments often injured by unintelligent usage, but fires in Baltimore, or floods in Kansas, or violent thunder storms will send scores of them back to be fixed up. As every item entering into their manufacture is standardized and finished parts are always in stock, repairs are made in short order.

#### **Offices.**

Now we will go to the general offices, which are immediately opposite the gate-house, and contained in the first two "bays" of the main building. Furniture, fixtures and partitions are of steel or fireproofed ash. Here are located the following offices: President, secretary, auditor, purchasing agent, the accounting and general sales departments, large rooms for stenographers and draftsmen, and fireproof chambers for the books and archives.

#### **Research Department.**

To close our visit to the works of the Weston Electrical Instrument Company, we have reserved the most important, the most fundamental department of the organization—the department of research, of discovery, of invention, which includes four laboratories—electrical, chemical, metallurgical and mechanical. The finest talent procurable, and the best apparatus and appliances are employed. Here is engaged a staff of experts whose business is to inspect, examine,



study, dig into everything mechanical, metallurgical or chemical connected with electricity.

Consequently, here are born new ideas, new methods, new instruments. "Onward and upward!" is the Weston motto. Without this department of creation the Weston organization could not progress.

This completes the tour of the works of the Weston Company, which, it is hoped, has not been without interest to the reader, from the standpoint of sociological and mechanical science.



## R. D. Wood Co. Works at Millville, Camden and Florence, N. J.

Iron Founders, Producers of Cast-Iron Pipe, Gate Valves, Lamp Posts, etc.

Employs 558 Males.

This firm takes the position that in dealing with employes the best results are to be obtained by indicating to them the lines that should be followed to advance their interests, rather than being itself an active and aggressive force in directing them to that much-desired end.

This course of action is based upon the firm conviction that the average American workman is fully able to take care of himself, having at his command wages which affords a margin above the bare means of existence as well as possessing by nature and training a very independent tone of mind.

The company has, therefore, simply aimed at surrounding their workmen with certain advantages of which they may avail themselves freely, if so disposed.

"First, and we believe, most important," to quote the company's own words, "we have aimed at keeping our works going steadily through good and bad times alike, so that for the desirable and serious men there should be as nearly continuous employment as possible.

"To go into more details, we have always maintained a store in the village in which our works are situated for the sale of goods to our operatives, leaving entirely to their option the question of purchasing goods there. Our store has never been really profitable, owing to the prices being placed on the lowest possible basis consistent with insuring merely that it shall pay the cost of running. We have, however, continued to run it, so that the cost of living in the village should not be influenced by those who might otherwise charge unfairly high prices for goods.

"We have aimed also to have a sufficient supply of houses, the property of the firm, the use of which is given to employes for a moderate sum per month, so that the average scale of rents throughout the town is not excessive.

"We keep in our office a deposit ledger, which affords our employes the same facilities as a savings bank. As the sums to their credit accumulate to comparatively large amounts, we desire and urge our workmen to withdraw their deposits and invest the money as may seem to them best.

"In addition to this general plan, we have furnished a hall for our men to use as they may wish for lodge purposes, etc., in which also a cooking school for the instruction of the wives and daughters of employes is conducted under competent management. Sewing lessons are given; the science of housekeeping is also taught, and the building is so maintained as to be available for the many uses which the convenience of the village population may require from time to time.

"As before said, our workmen are left absolutely free to use or not to use these facilities, as may seem to them best; there being not the slightest pressure placed upon them in favor of either course. We believe that any other course would tend to bring about strained and unnatural relations between people who must work together.

"As a rule, we find that they are more or less availed of. It might be better if the opportunities were more generally appreciated, yet we consider it unwise to force the advantages into undue prominence, feeling that to those who desire to use them, they will become apparent in a natural and unconstrained way."

The relations between this firm and its employes are perfectly cordial, and independent of the extent to which the latter avail themselves of facilities placed within their reach, there is abundant reason for believing that the kindly spirit displayed by the employers is fully appreciated and returned by their workmen.

## Woodhouse Chain Works, Trenton, N. J.

**Manufacturers of Welded Chains.**  
**Employs 70 Males.**

The employes of this firm have a sick and burial society, which has a membership of forty-one (41) persons, all of whom are employed in the works. The established dues are ten cents (\$0.10) per week, and the sick benefits, two dollars and fifty cents (\$2.50) for the first week of illness and five dollars (\$5.00) per week for a further period of five (5) weeks. No more than six (6) weeks' sick benefit is paid to any one person in six months.

The sum allowed for the burial of a dead member is fifty dollars (\$50.00), which amount is not taken from the funds of the society, but is raised by an assessment on the individual members.

The total amount disbursed since organization for the relief of sick and the burial of dead members is four hundred and seventy-one dollars and seventy cents (\$471.70). The firm does not contribute to the fund of the society; it has never been requested to do so, as, apparently there has been no emergency which required their assistance. It does, however, receive the dues as collected and attends to the custody and disbursal of all moneys.

The firm reports a high average of sobriety and steadiness at work among its employes, which may not unreasonably be credited to the influence which the benefit society has had over them.



The betterment work described in the foregoing pages shows what is being done in seventy-five separate establishments for the improvement of factory life. Many industries are included. The factories or workshops referred to in explaining the various features which the benefit movement has assumed, range in size from those employing a small army of operatives down to others in which a much smaller working force is engaged.

There are, doubtless, many establishments, not heard from, in which plans along the same general lines of effort for better conditions are being carried out, but their projectors or managers remained silent regarding them when called upon for information, either because of failure to comprehend the degree of interest which the general public takes in such work, or because of its importance to anyone other than the group of workmen directly benefited, not having been understood by themselves.

Enough has been shown, however, to prove that New Jersey employers and employes are not behind those occupying such relations to each other elsewhere, in the disposition to make intelligent use of the means at their command for the purpose of harmonizing the relations of capital and labor and placing factory life on a higher plane of comfort and security than it has heretofore enjoyed.

The aggregate number of operatives employed in these seventy-five establishments falls only a few short of twenty thousand; these are for the most part engaged in lines of industry requiring skill, and are, as a matter of course, men of the grade of intelligence who are best able to originate and carry out plans of a constructive character, by which, acting alone or in co-operation with their employers, betterment work, such as is described here, may be made most productive of good results for all.













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industrial statistics.  
Industrial betterment  
institutions in New Jersey  
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